```
Set     Items   Description
S1      82238   S BONE? ? OR OSTEOGENIC? OR ORTHOPED? OR ORTHOPAED? OR OSSEOUS? OR OSTEAL?
S2     952884   S CEMENT? OR PASTE? OR ADHESIV?
S3       5033   S CALCIUM()SULFATE OR POLYMERIC(1W)CEMENT? OR
(BONE(2N)GRAFT?(2N)(MATERIAL? ? OR SUBSTRATE? ?))
S4    1595764   S NEEDLE? ? OR TUBE? ? OR TUBULAR? OR SHEATH? OR SLEEVE? OR CANNULA? OR
CANULA? OR (DELIVER? OR ELONGAT?)(3N)(MEMBER? ? OR ELEMENT? ?)
S5    1718104   S PORT OR PORTS OR APERTURE? OR SLIT OR SLITS OR SLOT OR SLOTS OR
PERFORAT?
S6    2679354   S OPENING? OR HOLE? ?
S7    4891213   S RADIAL? OR SIDE OR SIDES OR LONGITUD? OR LATERAL?
S8    3463408   S PLURAL? OR MULTI OR MULTIPL? OR SEVERAL? OR MANY OR NUMEROUS?
S9     249849   S MORE(2W)ONE OR TWO(2W)MORE
S10      2247   S S1(3N)S2
S11     19017   S S4(5N)S5:S6(5N)S8:S9
S12         4   S (S3 OR S10) (S) S11
S13    169250   S S4(5N)S5:S6
S14    471175   S S5:S6(5N)S7
S15    245531   S S5:S6(5N)S8:S9
S16        35   S (S3 OR S10) AND S13 AND S14:S15
S17        16   S (S3 OR S10)(S)S13(S)S14:S15
S18        13   S S17 NOT S12
S19        18   S S16 NOT (S12 OR S17)
S20        71   S (S3 OR S10)(S)S13
S21        30   S (S3 OR S10)(20N)S13
S22        15   S S21 NOT (S12 OR S17 OR S19)
S23        31   S S20 NOT (S12 OR S17 OR S19 OR S22)
S24      5672   S S1(3N)(MATERIAL? ? OR SUBSTANCE? ? OR SUBSTRATE? ?)
S25        41   S S24 AND S13 AND S14:S15
S26        29   S S25 NOT (S12 OR S17 OR S19 OR S22 OR S23)
S27        49   S (S3 OR S10 OR S24) AND S14 AND S15
S28        20   S (S3 OR S10) AND S14 AND S15
S29        13   S S28 NOT (S12 OR S17 OR S19 OR S22 OR S23 OR S26)
S30         7   S S24(S)S14(S)S15
S31         4   S S30 NOT (S12 OR S17 OR S19 OR S22 OR S23 OR S26 OR S29)
S32        30   S (S3 OR S10)(S)S4(S)S14:S15
S33         9   S S32 NOT (S12 OR S17 OR S19 OR S22 OR S23 OR S26 OR S29 OR S31)
 ; show files
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[File 350] **Derwent WPIX** 1963-2007/UD=200724

**File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit http://www.dialog.com/dwpi/.*

[File 347] **JAPIO** Dec 1976-2006/Dec(Updated 070403)

?

18/12/2 (Item 2 from file: 350) **Links**
Derwent WPIX

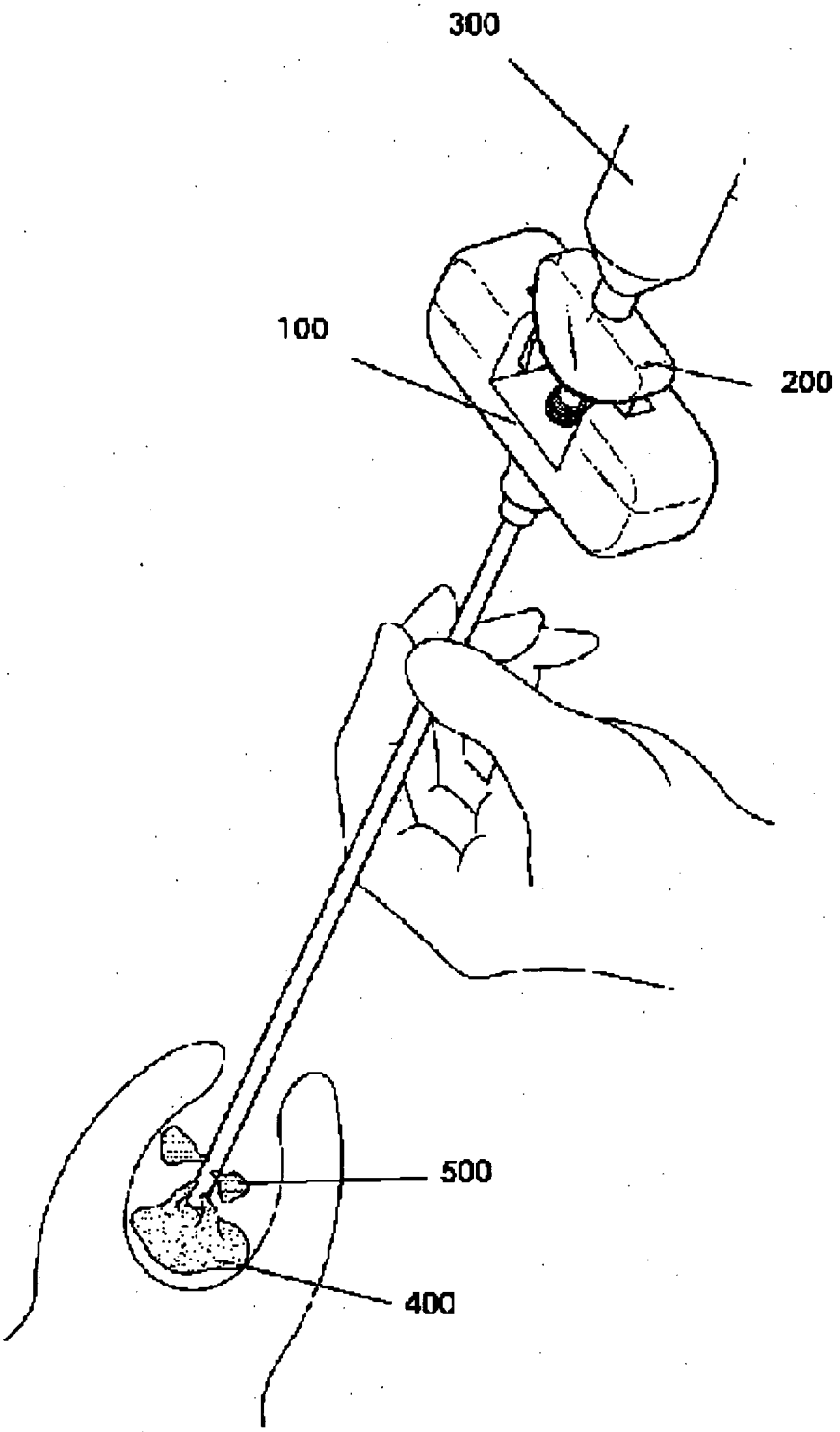
0015956554
WPI Acc no: 2006-488221/200650
Double needle apparatus for reducing injection pressure of bone cement while feeding the bone cement into bone of human by removing impurities
Patent Assignee: SONG N S (SONG-I)
Inventor: SONG N S

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
KR 2005096297	A	20051006	KR 200421436	A	20040330	200650	B

Priority Applications (no., kind, date): KR 200421436 A 20040330

Alerting Abstract KR A
NOVELTY - A double needle apparatus for reducing bone cement injection pressure is provided to eliminate excessive pressure during injection of the bone cement and homogeneously feed the bone cement in desired sites of human bone by efficiently removing impurities such as blood, broken pieces.
DESCRIPTION - The apparatus comprises an outside needle(100), an inside needle(200), a main hole at end of the outside needle, at least one slot hole on lateral side of the outside needle and a protrusion at the end of the inside needle which connects both of the needles. Impurities(500) generated while injecting **bone cement**(400) in a human bone is removed through the **slot hole**. The outside **needle** comprises a T shaped grip having a coupler to connect a stylet for puncturing the human bone; a **tube** type needle; the main **hole** at end of the outside **needle**; and one or more **slot holes** at **lateral side** of the outside needle. The inside needle comprises a grip having a syringe(300) connection part; a tube type needle; and an opened part having protrusion at end of the inside needle.(c) KIPO 2006Image 1/1

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: DOUBLE; NEEDLE; APPARATUS; REDUCE; INJECTION; PRESSURE; BONE; CEMENT; FEED; HUMAN; REMOVE; IMPURE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date

A61M-005/158			Main		"Version 7"

File Segment: EngPI; ;
DWPI Class: P34

18/12/5 (Item 5 from file: 350) **Links**
Derwent WPIX

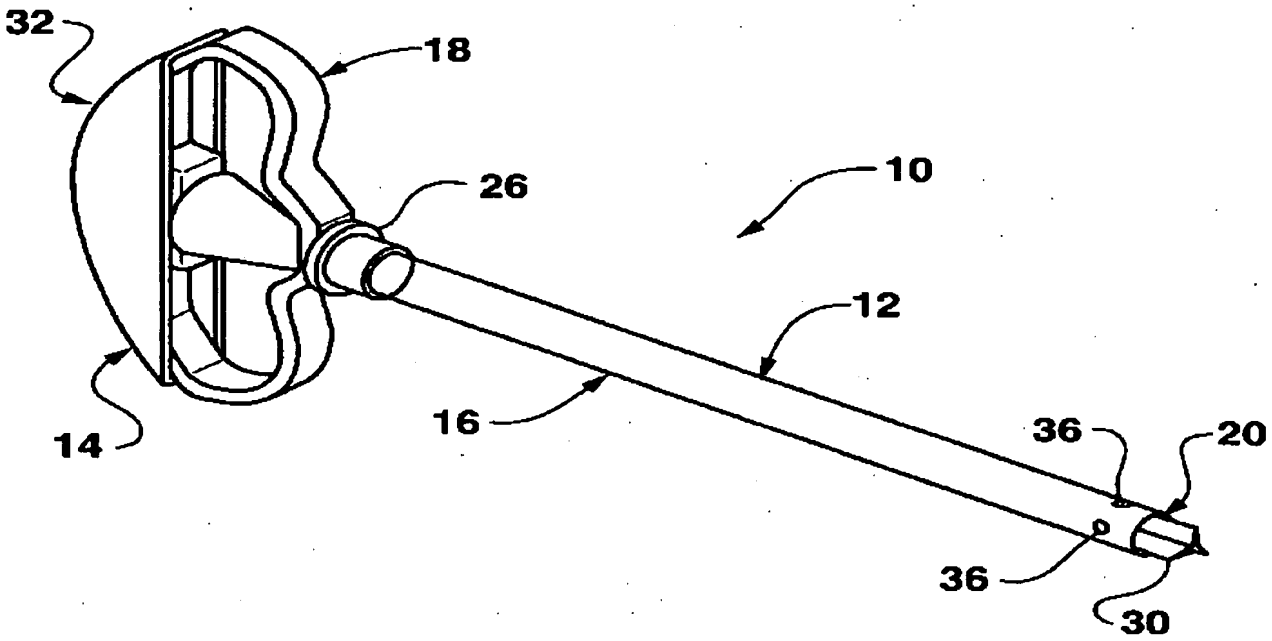
0014312311
WPI Acc no: 2004-499538/200447
XRPX Acc No: N2004-394623
Radially ported needle for delivering bone graft material has tube with radial ports that are spaced proximally from the open distal end for discharge of bone graft material in a radial direction at the bone defect area
Patent Assignee: HARRIS B R (HARR-I); RASKIN K B (RASK-I)
Inventor: HARRIS B R; RASKIN K B

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040133211	A1	20040708	US 2002415503	P	20021003	200447	B
			US 2003678701	A	20031003		

Priority Applications (no., kind, date): US 2002415503 P 20021003; US 2003678701 A 20031003

Alerting Abstract US A1
NOVELTY - An elongated tube (16) has an open distal end (20) for positioning at a bone defect area through a portal providing access to the bone defect area. The open proximal end of the tube is supplied with bone graft material. The **radial ports** (36) of the **tube** are spaced proximally from the open distal end for discharge of **bone graft material** in a radial direction at the bone defect area.
DESCRIPTION - An INDEPENDENT CLAIM is also included for delivering method for bone graft material to bone defect area of patient.
USE - For delivering bone graft material to metaphyseal compression fractures, bone voids or bone defect areas of patient.
ADVANTAGE - Allows simultaneous axial and radial delivery of bone graft material.
DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the instrument assembly with bone graft needle.
10 Instrument assembly
16 Tube
18 Handle
20 Open distal end
36 Radial ports

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: RADIAL; PORT; NEEDLE; DELIVER; BONE; GRAFT; MATERIAL; TUBE; SPACE; OPEN; DISTAL; END; DISCHARGE; DIRECTION; DEFECT; AREA

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

US Classification, Issued: 606092000

File Segment: EngPI; ;
DWPI Class: P31

18/12/7 (Item 7 from file: 350) **Links**
Derwent WPIX

0011184509
WPI Acc no: 2002-122478/200216
XRPX Acc No: N2002-091861
Instrument for injecting bone cement consists of guide wire, canula, front axial aperture, closure stopper and radial opening.

Patent Assignee: AUGMENTATION TECHNOLOGY GMBH (AUGM-N); HEINI P (HEIN-I); JAEGGI K (JAEG-I); JAGGI K (JAGG-I); SYNTHES CHUR AG (SYNT-N)
Inventor: HEINI P; JAEGGI K; JAGGI K

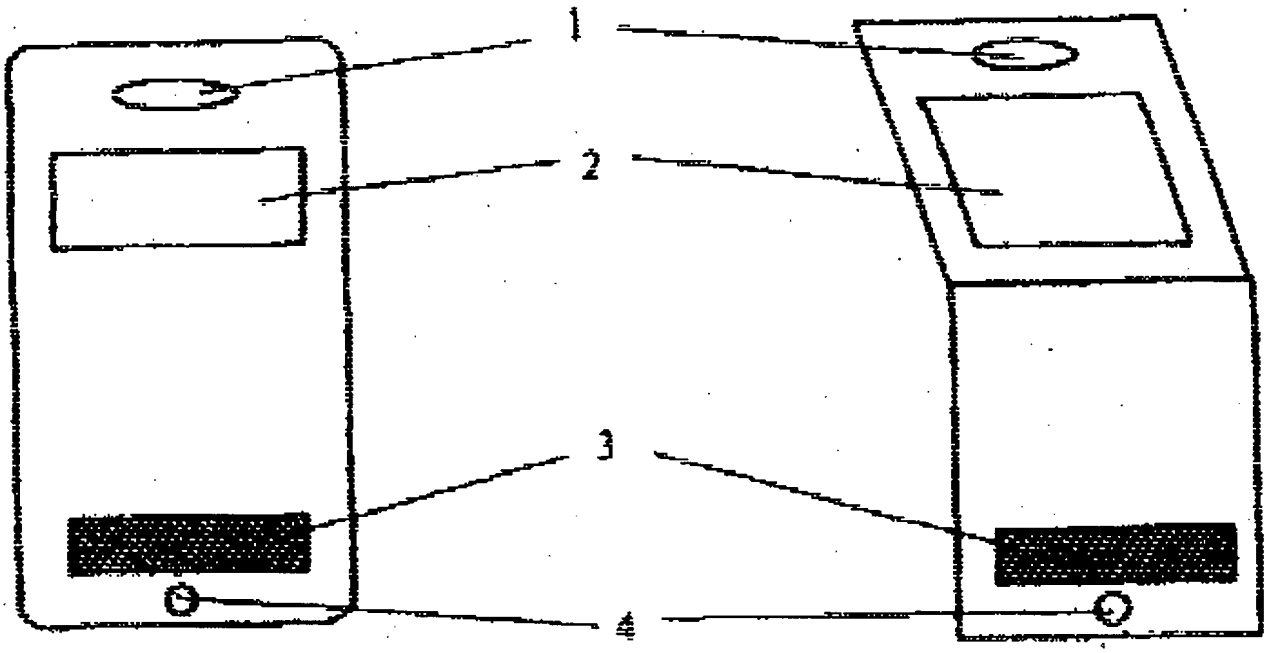
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2002002033	A1	20020110	WO 2000CH355	A	20000630	200216	B

Priority Applications (no., kind, date): WO 2000CH355 A 20000630
National Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Regional Designated States: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW AL LI LT LV MK RO SI

Alerting Abstract WO A1

NOVELTY - The canula (3) fits tightly onto the guide wire (1) by means of at least the front axial aperture's (4) internal diameter. The front axial aperture of the canula is closed by a closure piece (15) in the form of a spherical stopper, after the guide wire has been removed. The canula has a radial opening for the **bone cement** to emerge from, near the front axial aperture.
USE - Instrument for injecting bone cement for treatment of osteoporotic bones.
ADVANTAGE - The direction in which the bone cement is ejected can be controlled to some extent after the canula has been inserted.
DESCRIPTION OF DRAWINGS - The drawing shows a **canula** with **radial opening** and front closure body.
1 Guide wire
3 Canula
4 Front aperture
15 Closure piece.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: INSTRUMENT; INJECTION ; BONE; CEMENT; CONSIST; GUIDE; WIRE; FRONT; AXIS; APERTURE; CLOSURE; STOPPER; RADIAL; OPEN

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/28; A61F-002/46			Main		"Version 7"
A61B-017/56			Secondary		"Version 7
A61B-0017/56	A	I	F	R	20060101
A61B-0017/88	A	I		R	20060101
A61F-0002/28	A	I	L	R	20060101
A61F-0002/34	A	I	F	B	20060101
A61F-0002/46	A	I	F	B	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/88	C	I		R	20060101
A61F-0002/28	C	I	L	R	20060101
A61F-0002/32	C	I	F	B	20060101
A61F-0002/46	C	I	F	B	20060101
A61F-0002/46	C	I	L	B	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606092000, 606093000

File Segment: EngPI; ;

DWPI Class: P31; P32

18/12/10 (Item 10 from file: 350) **Links**
Derwent WPIX

0008907062
WPI Acc no: 1998-456829/199839
Related WPI Acc No: 2000-514878
XRAM Acc no: C1998-138078
XRPX Acc No: N1998-356553
Expanding bone cement plug - has insertion and extraction tools which engage with different portions of internal bore of expander screw having different and opposing threads
Patent Assignee: CHAN K (CHAN-I)
Inventor: CHAN K

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1998035635	A1	19980820	WO 1998US2589	A	19980212	199839	B

Priority Applications (no., kind, date): US 1997800928 A 19970213
National Designated States: AU CA JP
Regional Designated States: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Alerting Abstract WO A1
A core (105) for forming bone cement plug (100) for deployment in bone canal comprises: (a) substantially cylindrical base portion defining threaded bore extending axially and distally from proximal end; and (b) first and second opposed leg portions depending from and extending distally from base portion.
The threaded bore is adapted to receive an expander screw (110) to wedge apart first and second leg portions, expanding core widthwise to secure core in bone canal.
Also claimed are: (1) a bone cement plug including the above core and an expander screw with tapered distal end, and proximal end having threaded bore and annular flange; and (2) a method of fixing including inserting the above plug into bone canal, and advancing screw to expand plug widthwise in canal.
USE - The cement plug is used to fix prosthetic device in bone canal.
ADVANTAGE - The plug is easy to deploy at distal end of bone canal, and is effective at closing off bone canal, is easy to remove and replace at a later date, is bio-compatible and is cheap.

Title Terms /Index Terms/Additional Words: EXPAND; BONE; CEMENT; PLUG; INSERT; EXTRACT; TOOL; ENGAGE; PORTION; INTERNAL; BORE; SCREW; OPPOSED; THREAD

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date

A61F-002/28			Main		"Version 7"
A61B-017/56; A61B-017/58; A61F-002/32; A61F-002/36; A61F-002/44; F16B-013/04			Secondary		"Version 7

US Classification, Issued: 623016000, 606062000, 606095000, 411055000, 411060000

File Segment: CPI; EngPI
DWPI Class: A96; D22; P31; P32; Q61
Manual Codes (CPI/A-N): A12-V02; D09-C01D

Specific Compound Numbers: R00326; R00964
Derwent Chemistry Resource Numbers: (Linked) 1013-DIS; 1145-DIS; 1013; 1145

```
Key Word Indexing
*1* 1013-DIS 1145-DIS


Polymer Indexing
  (01)
*001* 018; G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D82 R00326-R
      1013-R; H0000; P1150; P1161
*002* 018; G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83 R00964-R
      1145-R; H0000; P1150; P1343
*003* 018; ND01; K9416; Q9999 Q8048 Q7987; Q9999 Q7556; B9999 B4488 B4466
```

19/12/3 (Item 3 from file: 350) **Links**
Derwent WPIX

0014682494
WPI Acc no: 2005-030078/200503
XRAM Acc no: C2005-009528
XRPX Acc No: N2005-026001
Bone cement injector system for reinforcing bone in preparation for screw implantation, has bone cement injection assembly with plunger and cannula that includes central longitudinal bore, uncured bone cement and distal perforation(s)
Patent Assignee: GOREK J E (GORE-I)
Inventor: GOREK J E

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040243137	A1	20041202	US 200244043	A	20020109	200503	B
			US 2004871593	A	20040621		

Priority Applications (no., kind, date): US 200244043 A 20020109; US 2004871593 A 20040621

Alerting Abstract US A1

NOVELTY - A **bone cement** injector system for reinforcing **bone**, has a **bone cement** injection assembly for incarceration in the **bone** after curing **bone cement** injected into the **bone** using the injection assembly. The injection assembly has a cannula including a central longitudinal bore, uncured **bone cement** and distal perforation(s). The injection assembly further comprises a plunger longitudinally translatable in the central bore of the cannula.

DESCRIPTION - A **bone cement** injector system for reinforcing **bone**, comprises a **bone cement** injection assembly clinically suitable for incarceration in the bone (314) after curing of **bone cement** (310) injected into the bone using the injection assembly. The injection assembly comprises a cannula (100) insertable into the bone. The cannula has a central longitudinal bore (104), uncured **bone cement**, and distal **perforation**(s) communicating with the central **longitudinal** bore. The injection assembly further comprises a plunger (200) longitudinally translatable in the central longitudinal bore of the cannula and by which the uncured **bone cement** is pushable through the distal perforation.

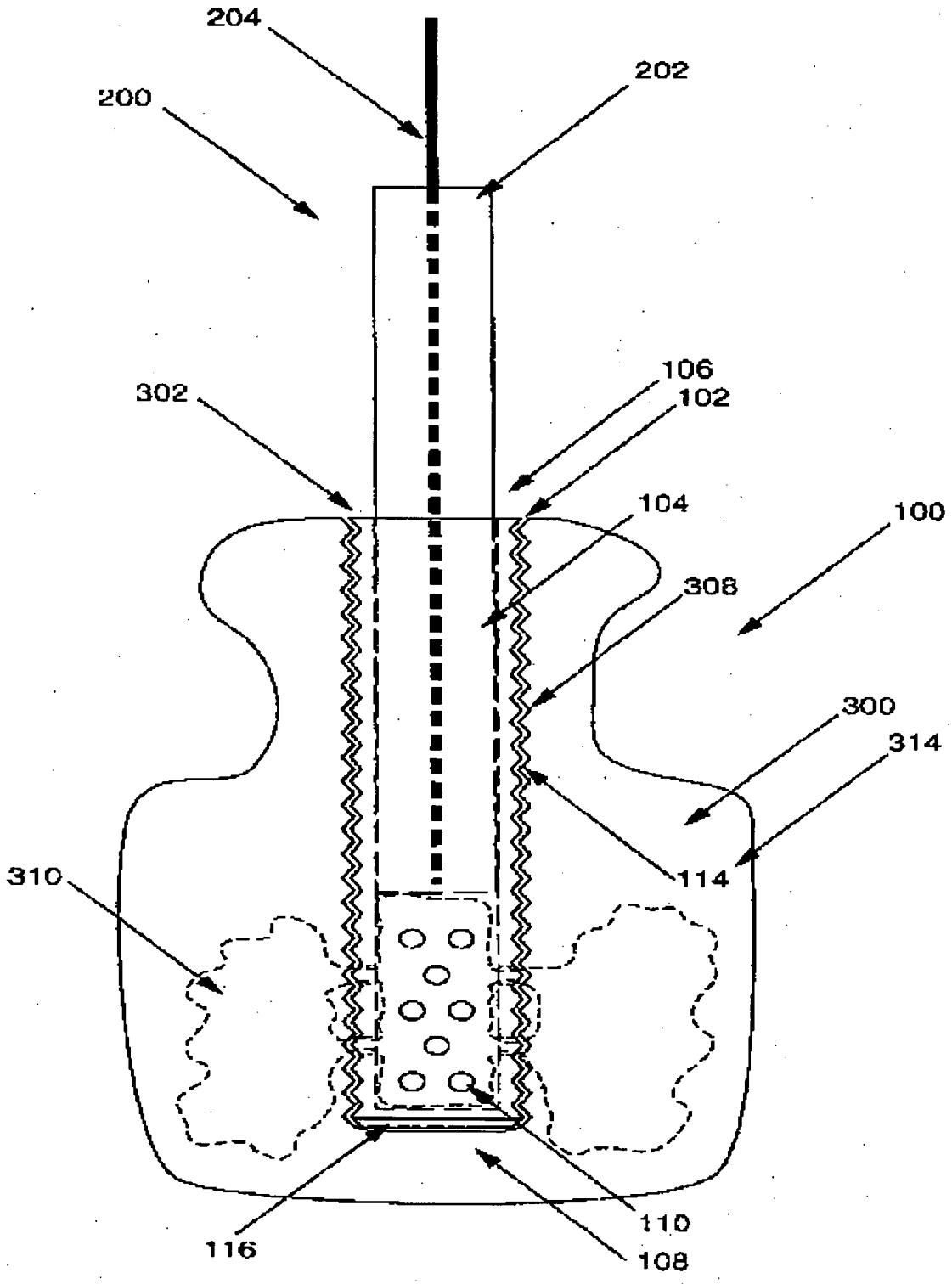
USE - For reinforcing bone in preparation for screw implantation.

ADVANTAGE - The inventive system is useful in spine surgery where a surgeon has the ability to assembly the **bone cement** injectors without the time pressure of inserting screws exactly after the material has been inserted. The surgeon has the ability to insert the pedicle screws into a dried **bone cement** cavity that will support, but not incarcerate the screw against removal if necessary.

DESCRIPTION OF DRAWINGS - The figure illustrates a method of reinforcing bone in preparation for screw manipulation.

100 Cannula
104 Central longitudinal bore
200 Plunger
310 **Bone cement**
314 Bone

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: BONE; CEMENT; INJECTOR; SYSTEM; REINFORCED; PREPARATION; SCREW; IMPLANT; INJECTION; ASSEMBLE; PLUNGE; CANNULA; CENTRAL; LONGITUDE; BORE; UNCURED; DISTAL; PERFORATION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

US Classification, Issued: 606092000

File Segment: CPI; EngPI
DWPI Class: A96; P31
Manual Codes (CPI/A-N): A12-V03D

Specific Compound Numbers: R00479
Derwent Chemistry Resource Numbers: (Linked) 7200-DIS; 7200

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Key Word Indexing
*1* 7200-DIS


Polymer Indexing
  (01)
*001* 2004; G0384 G0339 G0260 G0022 D01 D11 D10 D12 D26 D51 D53 D58 D63 D85
      F41 F89 R00479-R 7200-R; H0000; P0088; P0113
*002* 2004; Q9999 Q8026 Q7987; ND01
```

19/12/4 (Item 4 from file: 350) **Links**
Derwent WPIX

0014434522
WPI Acc no: 2004-624977/200460
Related WPI Acc No: 2004-052998
XRAM Acc no: C2004-224750
XRPX Acc No: N2004-494234
Cannula for use in delivering therapeutic material to bone tissue, e.g. vertebral bodies with compression fractures, includes cannula body having distal end with openings
Patent Assignee: SCIMED LIFE SYSTEMS INC (SCIM-N)
Inventor: BURNS M; JANSEN L P; OLSON S W

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20040167532	A1	20040826	US 2002183220	A	20020626	200460	B
			US 2004786251	A	20040224		

Priority Applications (no., kind, date): US 2002183220 A 20020626; US 2004786251 A 20040224

Alerting Abstract US A1

NOVELTY - A cannula comprises a cannula body (108) having a proximal end (110), a distal end (112), and a lumen; and a plunger (106) disposed within the lumen. The distal end of the **cannula** body includes **openings** (118a-e) axially spaced from each other.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for delivering implant material into tissue, comprising inserting a cannula body into a distal section of a tissue, perfusing an implant material out of a first opening into the tissue, proximally displacing the plunger from a first position distal to the first opening into a second position between the first and second openings, and perfusing the implant material out of the second opening into the tissue while the plunger is in the second position.

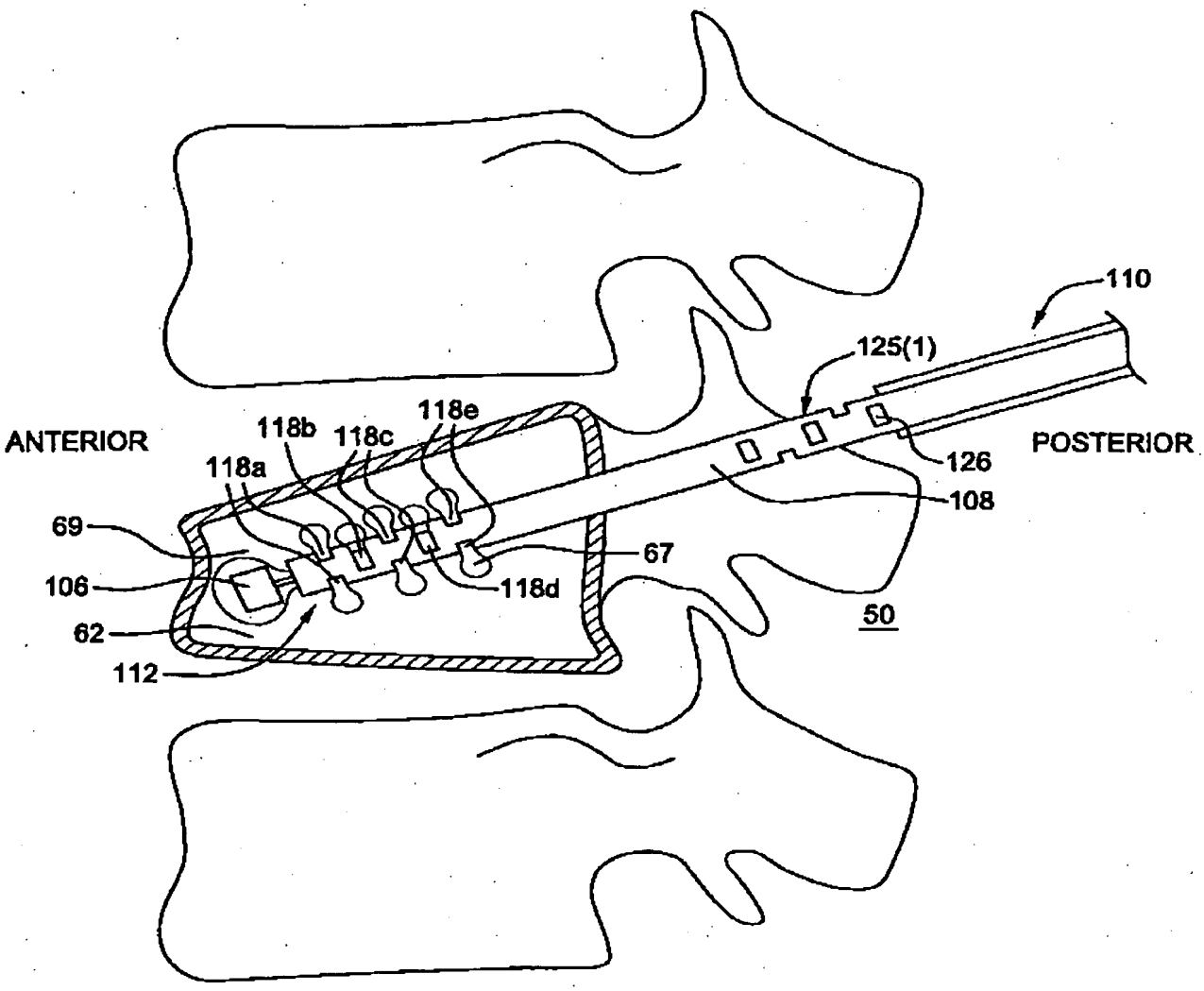
USE - For use in delivering therapeutic material to a treatment site, such as bone tissue, e.g. vertebral bodies (62) with compression fractures (claimed).

ADVANTAGE - The openings at the distal end of the cannula body and the plunger allows delivery of therapeutic material to both the proximal and distal ends of the treatment site without having to proximally displace the whole cannula. The plunger is tightly sealed to the inner wall of the cannula body, thus ensuring or minimizing leakage of the therapeutic material between the plunger and the inner wall.

DESCRIPTION OF DRAWINGS - The figure shows a side elevational view of the cannula inserted into a vertebral body.

62 Vertebral bodies
106 Plunger
108 Cannula body
110 Proximal end
112 Distal end
118a-e Openings

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: CANNULA; DELIVER; THERAPEUTIC; MATERIAL; BONE; TISSUE; VERTEBRA; BODY; COMPRESS; FRACTURE; DISTAL; END; OPEN

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58			Main		"Version 7"

US Classification, Issued: 606093000

File Segment: CPI; EngPI
DWPI Class: B07; P31
Manual Codes (CPI/A-N): B11-C04; B11-C04A

Chemical Indexing

Chemical Fragment Codes (M6):

01 M905 R15Q R220 R501

19/12/14 (Item 14 from file: 350) **Links**
Derwent WPIX

0007441758
WPI Acc no: 1996-050683/199606
XRAM Acc no: C1996-016602
XRPX Acc No: N1996-042497
Vertebral implant has three pierced tubular parts - provides access for bone repairs, is quickly and reliably accepted and can be adjusted for length during the operation
Patent Assignee: ULRICH H (ULRI-I)
Inventor: SCHOENHOEFFER H; SCHONHOFFER H

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 4423257	A1	19960104	DE 4423257	A	19940702	199606	B

Priority Applications (no., kind, date): DE 4423257 A 19940702
Regional Designated States: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

Alerting Abstract DE A1
An implant for insertion between vertebrae of the spinal column to provide location for displaced vertebra consists of two end pieces (1) which locate against the adjacent vertebrae, and between them an inner piece (2) which is joined to the endpieces (1) by opposite-hand screw threads (3,4) so that by turning the inner piece (2) the overall length of the implant can be altered, where the novelty is that all three pieces (1,2) are formed from tubular shells of, at least in the region of the screw threads (3,4), circular cross section, which are co-axially screwed together, and holes (9,10) are provided in the walls of each of the three pieces (1,2).
USE - To provide location and support for the spinal column when a vertebra has been wholly or partly removed or displaced.
ADVANTAGE - Is easier and quicker and enables easier repair with **bone cement** or **bone** grafts than known implants, and can have its length adjusted during the operation.

Title Terms /Index Terms/Additional Words: VERTEBRA; IMPLANT; THREE; PIERCE; TUBE; PART; ACCESS; BONE; REPAIR; QUICK; RELIABILITY; ACCEPT ; CAN; ADJUST; LENGTH; OPERATE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date

A61B-017/70; A61F-002/44			Main		"Version 7"

US Classification, Issued: 623017000, 606061000, 606063000

File Segment: CPI; EngPI
DWPI Class: D22; P31; P32
Manual Codes (CPI/A-N): D09-C01D

19/12/16 (Item 16 from file: 350) **Links**
Derwent WPIX

0001766045
WPI Acc no: 1979-A8945B/197905
Support element for surgical joint prosthesis - has tubular element with peripheral rectangular slots on side facing bone tissues
Patent Assignee: BRANEMARK FER INGVA (BRAN-N); BRANEMARR P I (BRAN-I)
Inventor: BRANEMARK P I; THURESSON AF EKENSTAM B

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
BE 870556	A	19790115				197905	B

Priority Applications (no., kind, date): SE 197710777 A 19770927

Alerting Abstract BE A
The support element is used for a surgical prosthesis and comprises a tubular sleeve (10) which is designed for fixing to the bone tissues. The configuration of this **sleeve** has a number of **slots** (13) around its periphery, these being open on the bone tissue side.
The slots are straight and have a rectangular cross section and may have a series of holes (17) along their lengths in order to receive a substance with a therapeutic action. The slots may also be lined with an absorbent spongy material. The sections between the slots may have alternate raised (19) and lowered (12) areas, or alternate cut-outs (11).

Title Terms /Index Terms/Additional Words: SUPPORT; ELEMENT; SURGICAL; JOINT; PROSTHESIS; TUBE; PERIPHERAL; RECTANGLE; SLOT; SIDE; FACE; BONE; TISSUE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date

A61F-001/24			Main		"Version 7"
A61F-002/00; A61F-005/04			Secondary		"Version 7

US Classification, Issued: 606086000, 606062000

File Segment: EngPI; ;
DWPI Class: P32

19/12/17 (Item 17 from file: 350) **Links**
Derwent WPIX

0001619713
WPI Acc no: 1978-H3690A/197838
Bone joint prosthesis - comprises apertured tubular supports cemented into bores in bones (SW 15.11.76)
Patent Assignee: BRANEMARK P I (BRAN-I)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
GB 1525667	A	19780920				197838	B

Priority Applications (no., kind, date): SE 19754625 A 19750422

Alerting Abstract GB A
Bone joint prosthesis for securement in bores (12, 13) in two bone members (10, 11) comprises two tubular support members (14, 15) for insertion into the respective bores. Each support member has **lateral openings** (16) spaced along and around its periphery.
Two cooperating prosthesis bodies (19, 20) have parts locatable in respective support members, at least one of these parts having an outer surface spaced from the inner surface of the associated support member. The arrangement is such that **bone cement** (21) can be introduced into the support member and can flow through the openings into contact with the associated bore to hold the support member in position for a short- or midterm period.

Title Terms /Index Terms/Additional Words: BONE; JOINT; PROSTHESIS; COMPRISE; APERTURE; TUBE; SUPPORT; CEMENTED; BORE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-0002/00	A	N		R	20060101
A61F-0002/30	A	I		R	20060101

A61F-0002/36	A	I		R	20060101
A61F-0002/46	A	N		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/30	C	I		R	20060101
A61F-0002/36	C	I		R	20060101
A61F-0002/46	C	N		R	20060101

File Segment: EngPI; ;
DWPI Class: P32

19/12/18 (Item 18 from file: 350) **Links**
Derwent WPIX

0001453318
WPI Acc no: 1977-B8021Y/197709
Osseous prosthesis with spherical joint - has tubular support with lateral openings and holding joint member
Patent Assignee: BRANEMARK P I (BRAN-I)
Inventor: BRANEMARK P I; EKENSTAM B T A

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
FR 2310121	A	19770107	FR 197612131	A	19760423	197709	B

Alerting Abstract FR A
The osseous prosthesis has a component for insertion in a hole formed in the bone. It has a tubular support with a series of **lateral openings** (16) at intervals along it. A body (18) fits at least part of the way inside the support, means being provided for securing it in place.
The support can have internal and external **tubes**, the former having **openings** in line with those of the latter, but smaller. Alternatively it can be of sheet metal with a perforated ceramic wall on the inside. As further alternatives it can be of spiral form, or designed to expand radially.

Title Terms /Index Terms/Additional Words: OSSEOUS; PROSTHESIS; SPHERE; JOINT; TUBE; SUPPORT; LATERAL; OPEN; HOLD; MEMBER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-001/00			Main		"Version 7"
A61F-001/03			Secondary		"Version 7

A61F-0002/00	A	N		R	20060101
A61F-0002/28	A	I	F	R	20060101
A61F-0002/30	A	I		R	20060101
A61F-0002/36	A	I		R	20060101
A61F-0002/46	A	N		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/28	C	I	F	R	20060101
A61F-0002/30	C	I		R	20060101
A61F-0002/36	C	I		R	20060101
A61F-0002/46	C	N		R	20060101

US Classification, Issued: 623018000, 606062000, 606092000, 623022000

File Segment: EngPI; ;
DWPI Class: P32

22/12/3 (Item 3 from file: 350) **Links**
Derwent WPIX

0014847883
WPI Acc no: 2005-195585/200520
XRPX Acc No: N2005-161594
Inserter for bone fastener fixation augmentation, has cannula with distal end having perforated nozzle adapted for insertion into bone so that cement and other biological materials may be injected into the bone through cannula
Patent Assignee: FALAHEE M H (FALA-I)
Inventor: FALAHEE M H

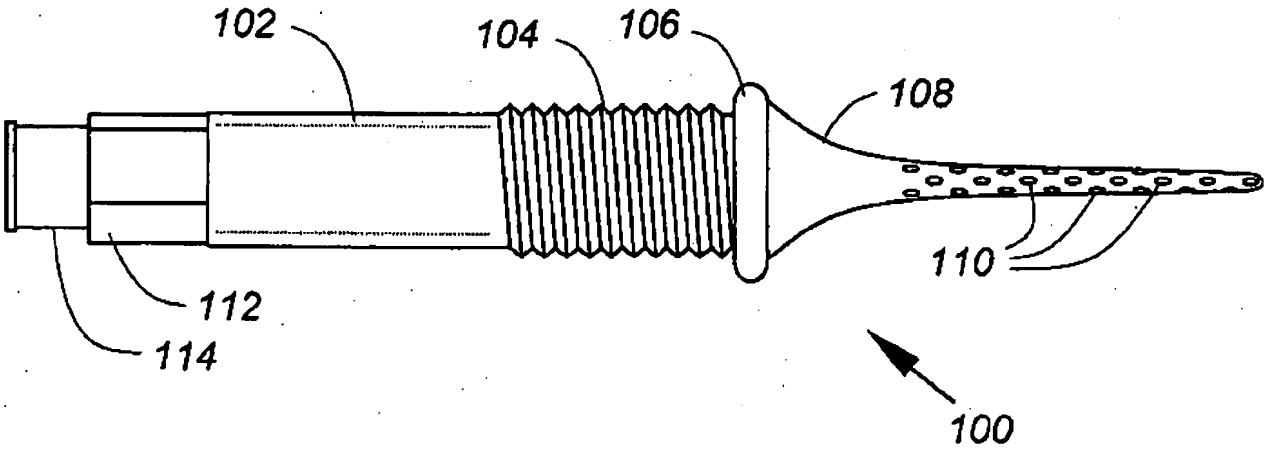
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050055030	A1	20050310	US 2003500630	P	20030905	200520	B
			US 2004935609	A	20040907		

Priority Applications (no., kind, date): US 2003500630 P 20030905; US 2004935609 A 20040907

Alerting Abstract US A1
NOVELTY - A cannula has a proximal end shaped adapted for tightening with a wrench or other tool, and a distal end with perforated nozzle adapted for insertion into a bone so that cement and other biological materials may be injected into the bone through the cannula.
DESCRIPTION - An INDEPENDENT CLAIM is included for the bone fortifying method.

USE - For bone fastener fixation augmentation.
ADVANTAGE - Improve placement of fastener into the bone. Minimize of prevent backflow of cement or other biological materials.
DESCRIPTION OF DRAWINGS - The figure is the side view of the cement injector.
100Device
102Clear plastic main body
104Threaded section
106Inflatable ring
112Proximal base

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: INSERT; BONE; FASTEN; FIX; AUGMENT; CANNULA; DISTAL; END; PERFORATION; NOZZLE; ADAPT; SO; CEMENT; BIOLOGICAL; MATERIAL; INJECTION; THROUGH

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/00			Main		"Version 7"

US Classification, Issued: 606092000

File Segment: EngPI; ;
DWPI Class: P32

23/12/7 (Item 7 from file: 350) **Links**
Derwent WPIX

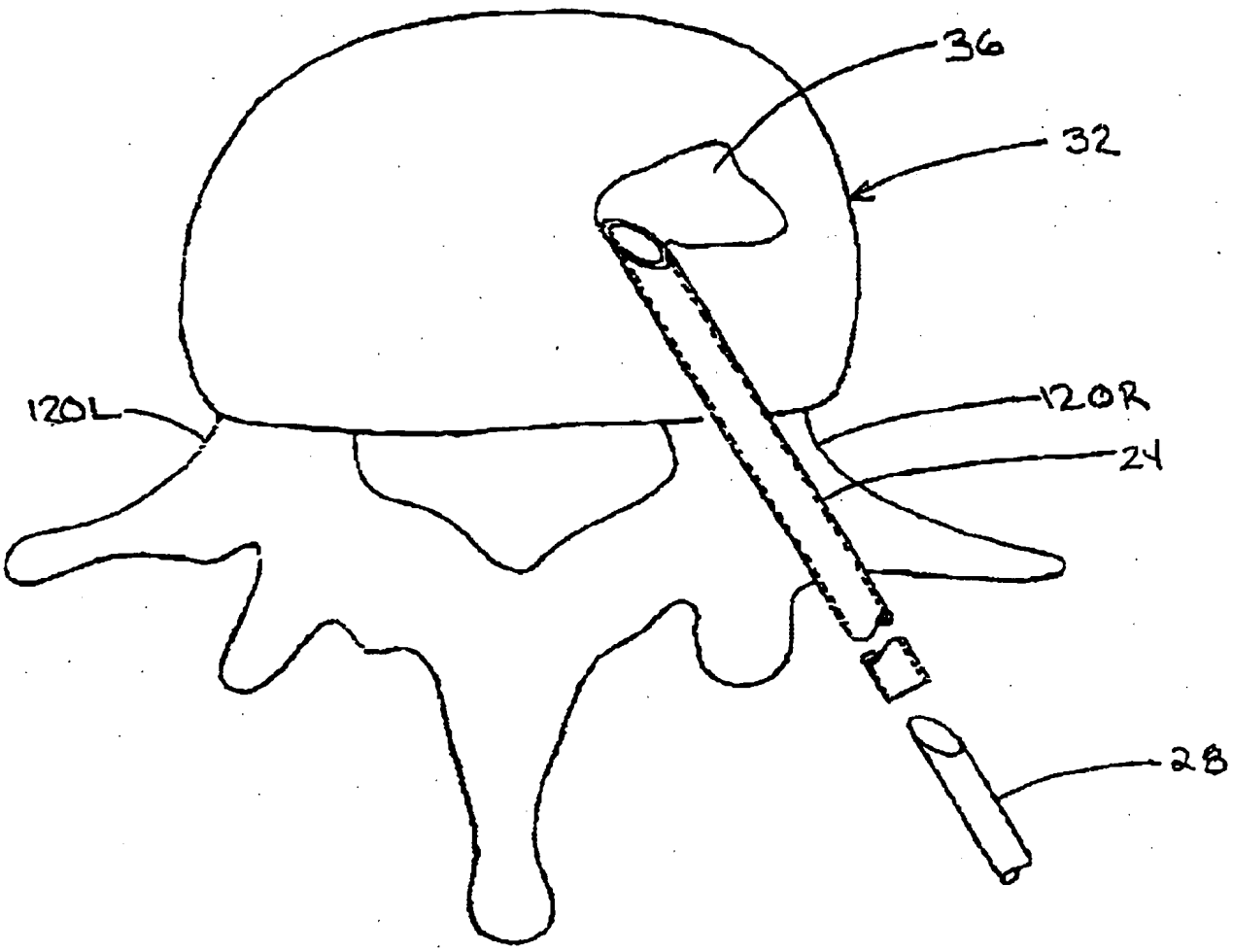
0014260862
WPI Acc no: 2004-447171/200442
XRPX Acc No: N2004-353544
Cement delivery needle passing method for performing percutaneous vertebroplasty, involves inserting tip into sheath and aligning tip with tapered outlet of sheath to form continuous edge
Patent Assignee: MURPHY K P J (MURP-I)
Inventor: MURPHY K P J

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6749595	B1	20040615	US 2000594167	A	20000615	200442	B

Priority Applications (no., kind, date): US 2000594167 A 20000615

Alerting Abstract US B1
NOVELTY - The method involves inserting a tip into a sheath (24) and aligning the tip with tapered outlet of sheath to form continuous edge. A connector and a complementary connector are attached to lock the tip within the sheath. A force is applied to the needle to pierce a periosteum of vertebrae with the edge. The needle is passed through a pedicle. Another force is applied to pierce a junction of the pedicle and vertebral body.
USE - Used for passing a cement delivery needle into a vertebral body for performing percutaneous vertebroplasty.
ADVANTAGE - The method enables the tip and the sheath to form a continuous edge, thereby enabling easier insert of the needle into the patient. The insertion of the needle requires less applied force and use of a hammer can be avoided when the needle passes through the periosteum into the pedicle and in the transition from the pedicle into the vertebral body. Less required force can allow the operator greater control during insertion of the needle.
DESCRIPTION OF DRAWINGS - The drawing shows an axial view of a vertebra showing a cement delivery needle inserted into a vertebral body.
24Sheath
28Insert
32Vertebral body
120R,120LPedicles

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: CEMENT; DELIVER; NEEDLE; PASS; METHOD; PERFORMANCE; PERCUTANEOUS; INSERT; TIP; SHEATH; ALIGN ; TAPER; OUTLET; FORM; CONTINUOUS; EDGE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61M-031/00			Main		"Version 7"

US Classification, Issued: 604500000, 604506000, 606185000

File Segment: EngPI; ;
DWPI Class: P34

23/12/9 (Item 9 from file: 350) **Links**
Derwent WPIX

0013292476
WPI Acc no: 2003-379142/200336
XRPX Acc No: N2003-302643

Bone cement delivery apparatus for use in reconstructive bone surgery has receiving slot that includes override surface and local recess which cooperate to removably mate delivery tube and connector with nozzle

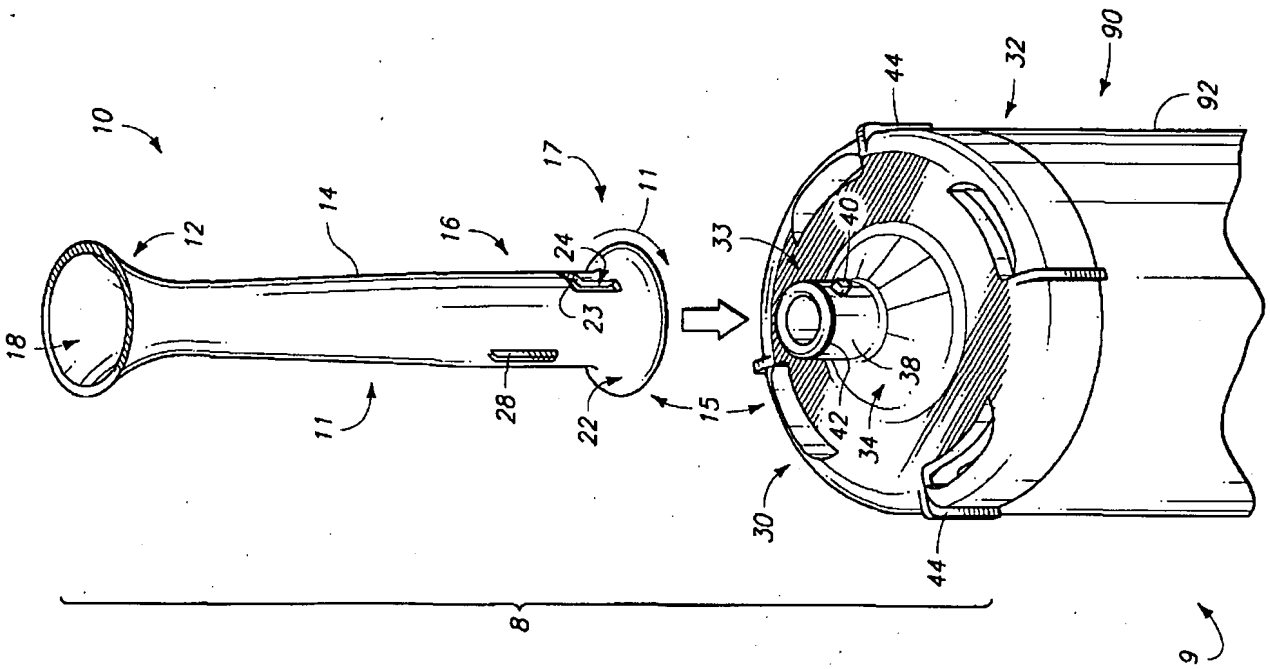
Patent Assignee: TELIOS ORTHOPEDIC SYSTEMS INC (TELI-N)
Inventor: BURCHETT R; WILLS R S

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 6502608	B1	20030107	US 2000503947	A	20000214	200336	B

Priority Applications (no., kind, date): US 2000503947 A 20000214

Alerting Abstract US B1
NOVELTY - A connector (17) at the end (16) of the delivery tube (11) includes a receiving slot (23) at its inner wall. The transverse portion of the receiving slot includes an override surface and a local recess which cooperate to removably mate the delivery tube and the connector with a nozzle (30). The nozzle is coupled to a container (90) that stores a load of **bone cement**.
USE - For use in dispensing surgical bone cement during reconstructive bone surgery.
ADVANTAGE - Tips are quickly and easily attached or detached to and from bone cement dispensing apparatus or container.
DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the tip and the nozzle.
11 Delivery tube
16 End
17 Connector
23 Slot
30 Nozzle
90 Container

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: BONE; CEMENT; DELIVER ; APPARATUS; SURGICAL; RECEIVE; SLOT; OVERRIDE; SURFACE; LOCAL; RECESS; COOPERATE; REMOVE; MATE; TUBE; CONNECT; NOZZLE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
B65B-039/00			Main		"Version 7"
B67C-011/04			Secondary		"Version 7

US Classification, Issued: 141386000, 141383000, 141384000, 141391000, 141392000, 604082000, 606092000

File Segment: EngPI; ;
DWPI Class: Q31; Q39

23/12/10 (Item 10 from file: 350) **Links**
Derwent WPIX

0013146690
WPI Acc no: 2003-229178/200322
XRPX Acc No: N2003-182417
Applicator device for controlled injection of surgical cement into bone, has detachable hollow body installed

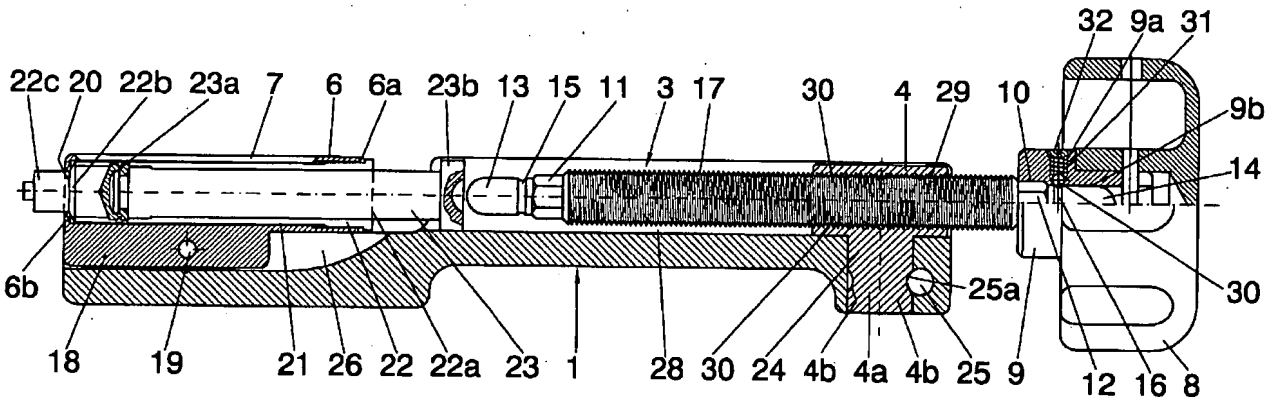
to long body and having inner cavity that secures syringe body
Patent Assignee: HIGUERAS A P (HIGU-I); VALDIVIESA T M (VALD-I)
Inventor: HIGUERAS A P; VALDIVIESA T M

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030018339	A1	20030123	US 2001908989	A	20010719	200322	B

Priority Applications (no., kind, date): US 2001908989 A 20010719

Alerting Abstract US A1
NOVELTY - The device has a long body (1) formed with an axial space (5) with a first end closed by a guiding block (4) with a female screw hole. A rotary screw (3) extends through the female screw hole and the axial space, and has an end (13) that selectively abuts the plunger (23) reciprocated within a syringe body (22) fixed within the inner cavity of a detachable hollow body (6).
DESCRIPTION - The hollow body is installed to the second end of long body. The inner cavity and the axial space ar coaxial with each other. The hollow body has an opening (20) that allows the extension of the tubular outlet (22c) of the syringe body.
USE - For controlled injection of surgical cement into bone during percutaneous vertebroplasty.
ADVANTAGE - Simplifies and expedites replacement of syringe body. Suppresses deformation of syringe body, during pressing of plunger. Simplifies and expedites attachment or detachment of hollow body to and from long body. Allows injection of surgical cement from syringe bodies of different sizes.
DESCRIPTION OF DRAWINGS - The figure shows the partial side sectional view of the applicator device.
1 Long body
3 Rotary screw
4 Guiding block
5 Axial space
6 Hollow body
13 End
20 Opening
22 Syringe body
22c Tubular outlet
23 Plunger

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: APPLY; DEVICE; CONTROL; INJECTION; SURGICAL; CEMENT; BONE; DETACH; HOLLOW; BODY; INSTALLATION; LONG; INNER; CAVITY; SECURE; SYRINGE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58; A61F-002/00			Main		"Version 7"
A61M-037/00			Secondary		"Version 7

US Classification, Issued: 606093000, 606093000, 604155000

File Segment: EngPI; ;
DWPI Class: P31; P32; P34

23/12/15 (Item 15 from file: 350) **Links**
Derwent WPIX

0010386162
WPI Acc no: 2000-208563/200019
XRAM Acc no: C2000-064457
XRPX Acc No: N2000-155554
Decanting apparatus for bone cement has an output plunger in a housing with a thorough-hole for the flowing cement
Patent Assignee: CENTERPULSE ORTHOPEDICS LTD (CENT-N); SULZER ORTHOPAEDIE AG (SULZ)
Inventor: HELLER M; SUAREZ F

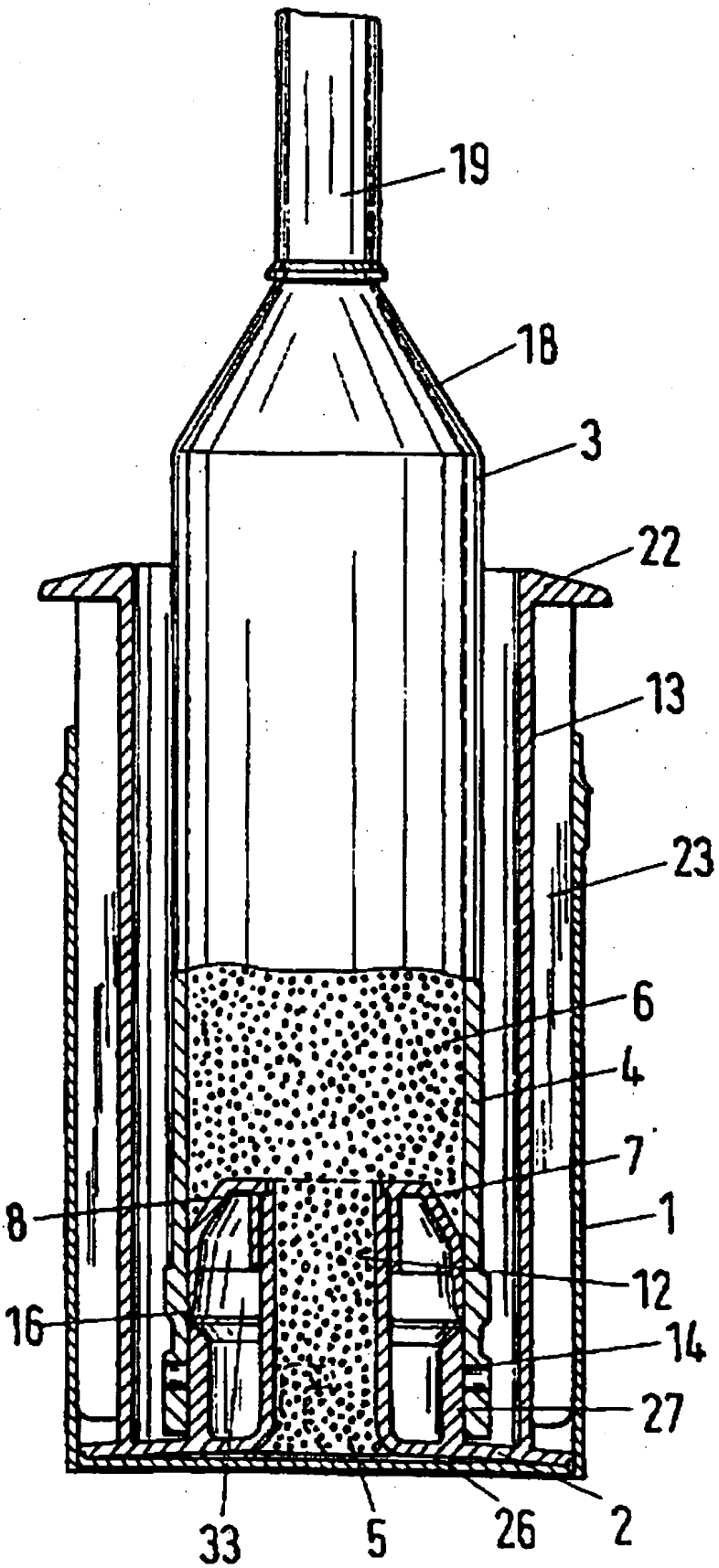
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 986995	A1	20000322	EP 1999810741	A	19990818	200019	B

Priority Applications (no., kind, date): EP 1999810741 A 19990818; EP 1998810925 A 19980916
Regional Designated States: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LT LU LV MC MK NL PT RO SE SI

Alerting Abstract EP A1

NOVELTY - An output plunger (7) inserted in the housing (4) has a through-hole (8) in the region of an opening (5) for the flowing cement. The through-hole can be closed using a stopper after removal of the cement spray (3).
DESCRIPTION - Decanting apparatus for bone cement consists of a cylindrical mixing vessel (1) open at the top and a decanting plunger (2) removably connected to the housing (4) of a cement spray (3) with an opening (5) through which the mixed cement (6) is decanted by pressing down the decanting plunger into the housing. An output plunger (7) inserted in the housing (4) has a through-hole (8) in the region of an opening (5) for the flowing cement. The through-hole can be closed using a stopper after removal of the cement spray (3).
USE - For dosing bone cement.
ADVANTAGE - The decanting plunger can be easily unblocked.
DESCRIPTION OF DRAWINGS - The drawing shows a schematic view of a decanting plunger in its lowermost position in the mixing vessel.
1 cylindrical mixing vessel
2 decanting plunger
3 cement spray
4 housing
5 opening
6 cement
7 output plunger
8 through-hole

Main Drawing Sheet(s) or Clipped Structure(s)


19
18
3
22
13
23
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4
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8
1
12
16
14
27
33
5
26
2

Title Terms /Index Terms/Additional Words: DECANT; APPARATUS; BONE; CEMENT; OUTPUT; PLUNGE; HOUSING; THOROUGH; HOLE; FLOW

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/46			Main		"Version 7"
B01F-013/00			Secondary		"Version 7

US Classification, Issued: 606092000, 606093000, 606094000, 606093000, 606092000, 606094000

File Segment: CPI; EngPI
DWPI Class: D22; P32
Manual Codes (CPI/A-N): D08-A02

23/12/17 (Item 17 from file: 350) **Links**
Derwent WPIX

0009866917
WPI Acc no: 2000-162538/200015
XRPX Acc No: N2000-121323
Device for filling of bone cement into a bone cavity with funnel-shaped exit
Patent Assignee: DUNSCH-HERZBERG R (DUNS-I); VOSS G (VOSS-I)
Inventor: HERZBERG W

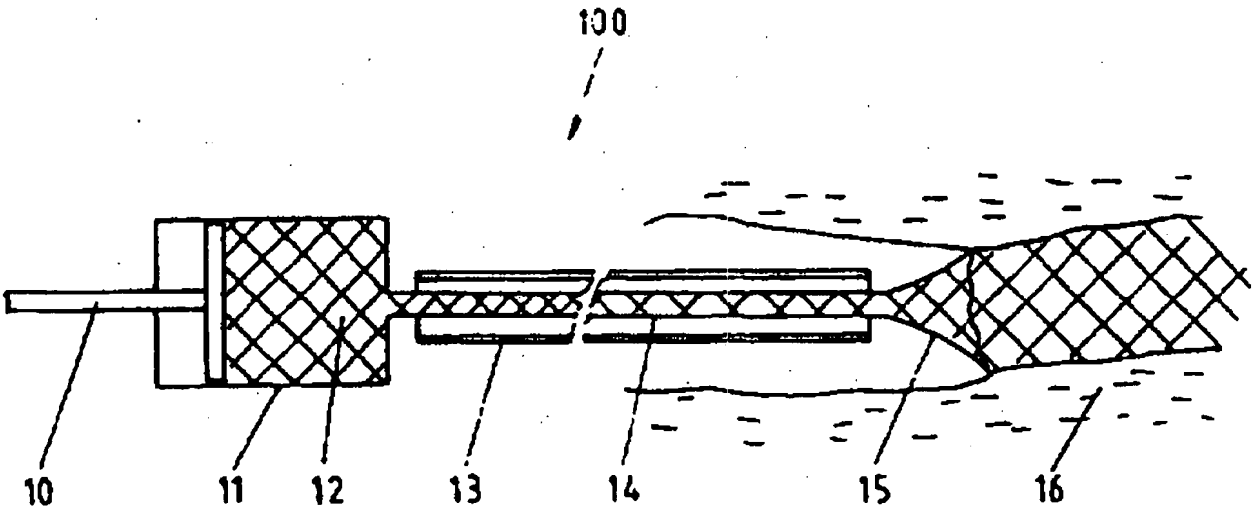
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 29919110	U1	20000127	DE 29919110	U	19991101	200015	B

Priority Applications (no., kind, date): DE 29919110 U 19991101
Regional Designated States: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Alerting Abstract DE U1
NOVELTY - The bone cement (12) filling device (100) comprises an exit opening (15) of a filling pipe which has an adjustable cross-section. A blocking device (13) limits maximum opening cross-section, and is formed from a sliding tube which moves coaxially to the infill pipe (14). The exit opening is made from foldable, flexible material (17,19) and is funnel-shaped.
USE - For filling bone canals with bone cement in device fixation e.g. in hip replacements.

ADVANTAGE - The bone cement inserter applies the cement along the whole length of a bone canal, and a high quality of filling is achieved consistently from patient to patient. The exit **opening** cross-section of the insertion **tube** may be changed during filling to allow for changes in the cavity shape.
DESCRIPTION OF DRAWINGS - The figure shows a cross-sectional view of the **bone cement** filling device.
12 **Bone cement**
13 Blocking device
14 Infill pipe
15 Exit opening
17,19 Flexible material
100 Filling device

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: DEVICE; FILL; BONE; CEMENT; CAVITY; FUNNEL; SHAPE; EXIT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/28; A61M-005/14			Main		"Version 7"
A61B-017/56; A61B-017/58; A61C-005/04; A61F-002/24			Secondary		"Version 7

File Segment: EngPI; ;
DWPI Class: P31; P32; P34

23/12/20 (Item 20 from file: 350) **Links**

0008942825
WPI Acc no: 1998-494569/199842
XRPX Acc No: N1998-386308

Apparatus for use with bone cement injection gun e.g. during prosthetic device implantation - has resilient conical-shaped pressurising plug slidable mounted on exterior of tubular member to from seal on opening at end of intramedullary cavity

Patent Assignee: CLYBURN T A (CLYB-I)
Inventor: CLYBURN T A

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5800439	A	19980901	US 1997857421	A	19970516	199842	B

Priority Applications (no., kind, date): US 1997857421 A 19970516

Alerting Abstract US A
The apparatus comprises an elongate tubular member having a central bore, a proximal end, and a distal end, the proximal end adapted to be engaged on the nozzle of a bone cement injection gun for conducting bone cement through the central bore. It also has a fluid flow passageway extending from the distal end to the proximal end isolated from the central bore and having a fluid inlet at the distal end and a fluid outlet at the proximal end adapted for connection to a source of vacuum. There is a porous absorbent pad secured to the distal end surrounding the fluid inlet and sized to be received in the intramedullary canal.
It also has a resilient generally conical-shaped pressurizing plug slidably mounted on the exterior of the tubular member sized and shaped to form a seal on the opening at the proximal end of the intramedullary cavity. The bone cement under pressure is injected through the central bore while fluid is drawn through the absorbent pad and the fluid flow passageway, the tubular member and the injection gun are moved axially outward from the intramedullary canal as it is filled with bone cement under pressure. The fluid and blood products are continuously evacuated from the interior of the intramedullary canal during the injection and pressurization of the bone cement.
USE - For use with a bone cement injection gun during pressurized injection of bone cement into the intramedullary canal of a bone prepared for implantation of a prosthetic device to facilitate continuous removal of fluid and blood products from, and simultaneous drying of, the interior surfaces of the intramedullary canal.
ADVANTAGE - Eliminates stress risers in the bone cement due to occlusions of fluid and blood in the cement to improve cement bonding.

Title Terms /Index Terms/Additional Words: APPARATUS; BONE; CEMENT; INJECTION; GUN; PROSTHESIS; DEVICE; IMPLANT; RESILIENT; CONICAL; SHAPE; PRESSURISED; PLUG; SLIDE; MOUNT; EXTERIOR; TUBE; MEMBER; SEAL; OPEN; END; INTRAMEDULLARY; CAVITY

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/56			Main		"Version 7"

US Classification, Issued: 606094000, 606093000

File Segment: EngPI; ;
DWPI Class: P31

23/12/24 (Item 24 from file: 350) **Links**
Derwent WPIX

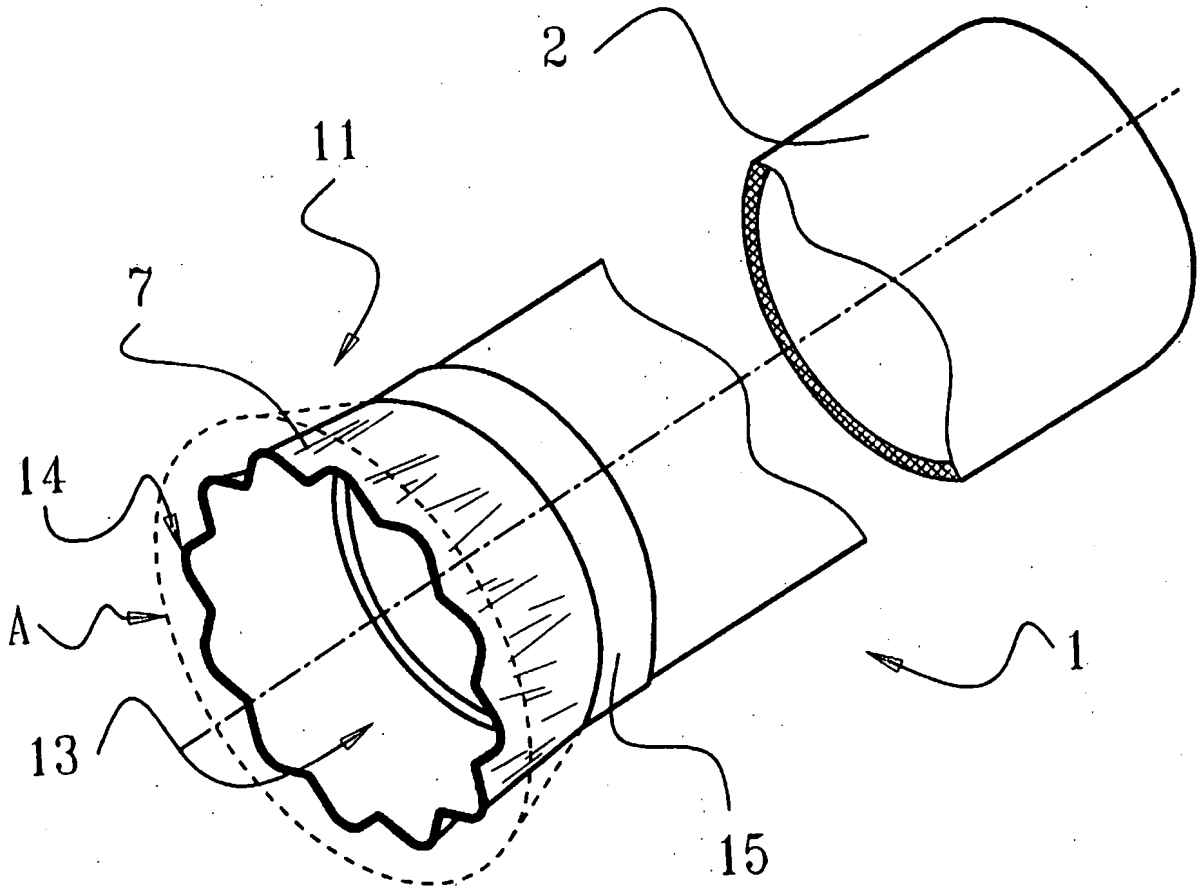
0006989538
WPI Acc no: 1994-359339/199445
XRPX Acc No: N1994-281556
Introduction of cement into bone cavity during surgery - involves circular-section tube with end fitting with corrugated outlet, slats or vanes
Patent Assignee: ARTOS MEDIZINISCHE PROD GMBH (ARTO); BIOMET MERCK DEUT GMBH (BIOM-N)
Inventor: BERNOSKI F P; KRANZ C

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 4316655	A1	19941117	DE 4316655	A	19930511	199445	B

Priority Applications (no., kind, date): DE 4316655 A 19930511
Regional Designated States: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

Alerting Abstract DE A1
The filling and spreading device is used for introducing bone cement into the central cavity of a long bone during surgery. It has a straight tube (2) which is passed through a boer drilled through the end of the bone into the cavity. The cylindrical end (15) of the tube has a device (7) to help spread the cement on the inner wall of the cavity. The extreme end of the device has corrugations (13) superimposed in the generally circular shape and the device gradually tapers from the circular shape to the corrugated shape. Alternative shapes may include slots or vanes.
USE/ADVANTAGE - Probe for introducing bone cement into bone cavity during surgery with end fitting to improve spreading of cement on cavity walls.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: INTRODUCING; CEMENT; BONE; CAVITY; SURGICAL; CIRCULAR; SECTION; TUBE; END; FIT; CORRUGATED; OUTLET; SLAT; VANE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-002/28; A61F-002/46			Main		"Version 7"
A61B-017/56			Secondary		"Version 7

File Segment: EngPI; ;
DWPI Class: P31; P32

23/12/25 (Item 25 from file: 350) **Links**
Derwent WPIX

0005727709
WPI Acc no: 1991-341878/199147
XRAM Acc no: C1991-147512
XRPX Acc No: N1991-261791

Intramedullary femoral prosthesis stem - provided with polyacrylic perforated sheath to reduce formation of cracks

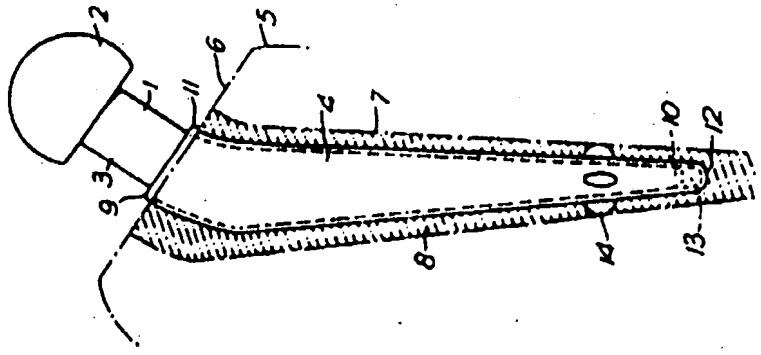
Patent Assignee: HOWMEDICA INT INC (HOWN)
Inventor: LAWES P; VANDERLIND J; VANDERLINDEN J

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 457464	A	19911121	EP 1991303958	A	19910501	199147	B

Priority Applications (no., kind, date): GB 199011132 A 19900517
Regional Designated States: AT BE CH DE ES FR GB GR IT LI LU NL SE DK

Alerting Abstract EP A
A perforated sheath of acrylics is designed to cover a stem of an intramedullary prosthesis from its distal end to adjacent the proximal cut end of the femur. Pref. the stem is constructed to allow the prosthesis to move into it under load. Pref. centralisers (14) are provided. Pref. the sheath is made of material similar to **bone cement** e.g. polymethylmethacrylate.
ADVANTAGE - Reduces the chance of cracks or gaps forming between the prosthesis, **bone** and **cement**. @(6pp Dwg.No.1/2)@

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: INTRAMEDULLARY; FEMORAL; PROSTHESIS; STEM; POLYACRYLIC; PERFORATION; SHEATH; REDUCE; FORMATION; CRACK

Class Codes

IPC	International Patent Classification				
	Class	Scope	Position	Status	Version Date

	Level				
A61F-002/30; A61F-002/32; A61F-002/36			Main		"Version 7"

US Classification, Issued: 623023000, 623016000, 623018000

File Segment: CPI; EngPI
DWPI Class: A96; D22; P32
Manual Codes (CPI/A-N): A04-F01A; A12-V02; D09-C01

Chemical Indexing
Plasdoc Codes (KS): 0231 0486 0487 0500 0535 2211 2628 2654 2718 2765 3011 3258

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Polymer Fragment Codes (PF):
  *001* 014 034 04- 074 077 081 082 308 43& 477 50& 551 560 566 575
        596 645 651 688
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23/12/27 (Item 27 from file: 350) **Links**
Derwent WPIX

0002835681
WPI Acc no: 1983-D8624K/198312
Bone cement dispensing nozzle - has expandable shield with spaced ribs to form cone around nozzle
Patent Assignee: MURRAY W M (MURR-I)
Inventor: MURRAY W M

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
GB 2105198	A	19830323	GB 198223694	A	19820817	198312	B

Priority Applications (no., kind, date): US 1981299410 A 19810904

Alerting Abstract GB A
The nozzle is for flowing bone cement into a long bone medullary canal. The nozzle includes an elongate delivery tube with one end to be attached to a source of bone cement. A shield impervious to bone cement is secured to the other end of the delivery tube so that bone cement flowing through the delivery tube is delivered past the shield. The shield has a flexible outer edge, and is movable between a collapsed position adjacent the delivery tube for insertion into the canal and an expanded position where the shield dams the flow of cement outwardly of the canal and the outer edge of the shield forms a seal against the wall of the canal.
The shield has a truncated conical shape when expanded. The shield includes flexible sheeting at the edge for

conforming to irregularities in the medullary canal and stiffener extending from the other end of the delivery tube to the edge.

Title Terms /Index Terms/Additional Words: BONE; CEMENT; DISPENSE; NOZZLE; EXPAND; SHIELD; SPACE; RIB; FORM; CONE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/00			Main		"Version 7"
A61B-017/18; A61F-001/00; A61F-002/46; A61M-003/00			Secondary		"Version 7

US Classification, Issued: 606094000, 141189000, 141312000, 141367000, 604278000, 623016000

File Segment: EngPI; ;
DWPI Class: P31; P32; P34

23/12/30 (Item 30 from file: 350) **Links**
Derwent WPIX

0001973302
WPI Acc no: 1980-A2932C/198002
Bone cement applicator for artificial hip joint surgery - is slit tube with ram to discharge contents, excluding air and blood
Patent Assignee: OSTEO AG (OSTE-N)
Inventor: LEU B; MITTELMEIE H; MOSER H

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
EP 6415	A	19800109	EP 1978810006	A	19780629	198002	B
			EP 1978810006	A	19780629		

Priority Applications (no., kind, date): EP 1978810006 A 19780629
Regional Designated States: CH DE FR GB

Alerting Abstract EP A
The bone cement application device consists of a sleeve (2) of expiring shape to match the shape of the part of the prosthesis to be inserted and A ram (4) holds back the contents as the sleeve is drawn away from the cavity in the bone.

The sleeve, which may be of transparent plastics material, or of a metal foil, is slotted from top to bottom and the edges may overlap. The narrow end of the sleeve may be connected to a vacuum pump. The other end can incorporate side projection (3) to ensure a good grip.
The applicator is for applying cement to artificial hip joints.
The cement charge can be inserted without contamination by blood or air at the entrance to the bone cavity.

Title Terms /Index Terms/Additional Words: BONE; CEMENT; APPLY; ARTIFICIAL; HIP; JOINT; SURGICAL; SLIT; TUBE; RAM; DISCHARGE; CONTENT; EXCLUDE; AIR; BLOOD

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61F-001/00			Secondary		"Version 7

File Segment: EngPI; ;
DWPI Class: P32

?

26/12/17 (Item 17 from file: 350) **Links**
Derwent WPIX

0011224595
WPI Acc no: 2002-163864/200221
Related WPI Acc No: 2007-101271
XRPX Acc No: N2002-125097
Directing tool used for bone replacement material, has elongated hollow tube having deflector openings for deflecting bone replacement material out of tube at angle relative to longitudinal axis of tube
Patent Assignee: AHERN J W (AHER-I); KUSLICH S D (KUSL-I); PETERSON F (PETE-I); SPINEOLOGY GROUP LLC (SPIN-N); SPINEOLOGY INC (SPIN-N)
Inventor: AHERN J W; KUSLICH S; KUSLICH S D; PETERSON F

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20020010472	A1	20020124	US 2000608079	A	20000630	200221	B
			US 2000738726	A	20001215		

Priority Applications (no., kind, date): US 2000608079 A 20000630; US 2000738726 A 20001215; NZ 526520 A 20010703
National Designated States: AU CA HU JP KR NZ
Regional Designated States: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR AL LI LT LV MK RO SI

Alerting Abstract US A1

NOVELTY - The tool (18) has an elongated hollow tube having a proximal end attached to a source of **bone** replacement **material** (26) under pressure, and a distal end having deflector openings (30,32) for deflecting **bone** replacement **material** out of the tube at an angle relative to the longitudinal axis of the tube.

USE - Used for **bone** replacement **material**.

ADVANTAGE - Increases the distraction forces within the expandable fabric bag held within a reamed out disc. Allows spacing between vertebrae to be adjusted by inflating the bag.

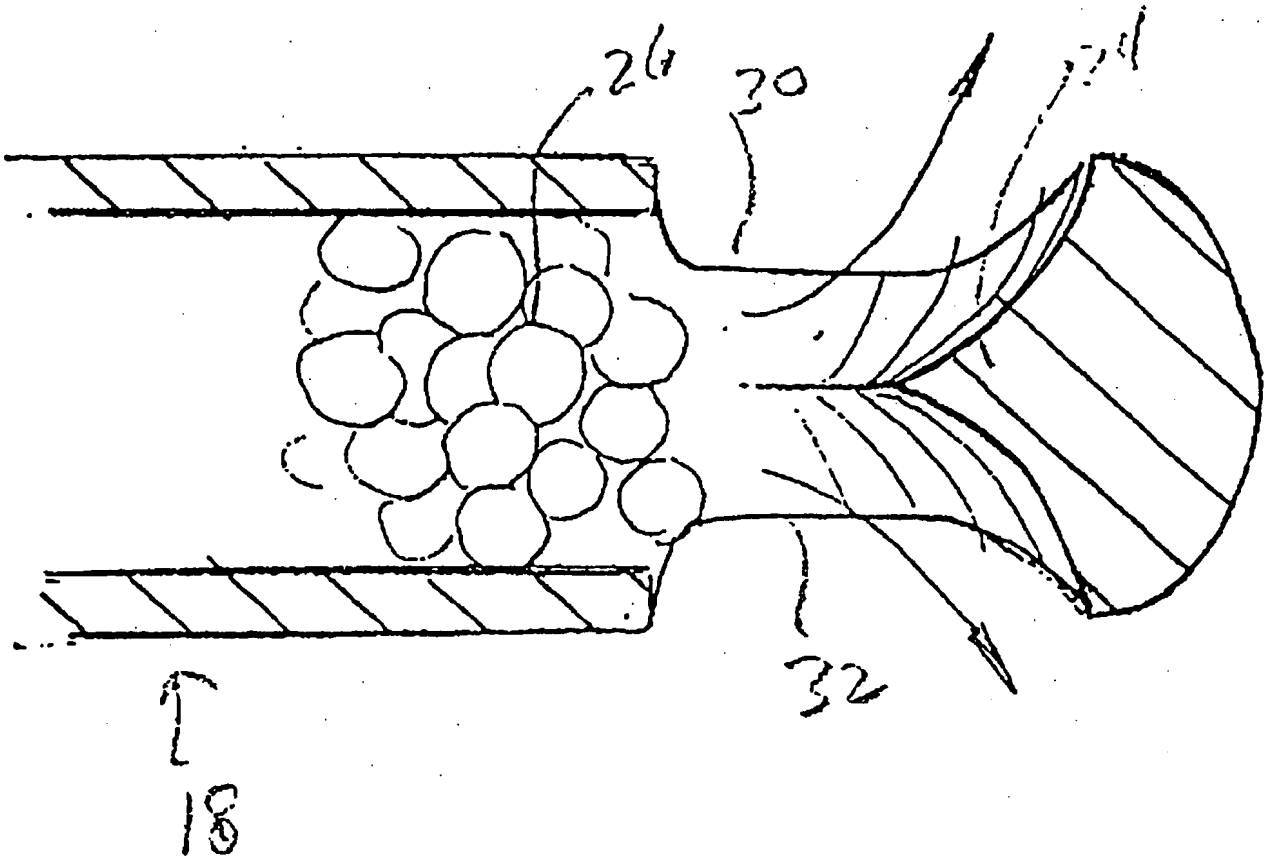
DESCRIPTION OF DRAWINGS - The figure shows the cross-sectional view of the distal end of the filling tool.

18 Tool

26 **Bone** replacement **material**

30,32 Deflector openings

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: DIRECT; TOOL; BONE; REPLACE; MATERIAL; ELONGATE; HOLLOW; TUBE; DEFLECT; OPEN; ANGLE; RELATIVE; LONGITUDE; AXIS

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date

A61B-017/56			Main		"Version 7"
A61F-002/46			Secondary		"Version 7
A61B-0017/34	A	I	F	B	20060101
A61B-0017/34	A	I		R	20060101
A61B-0017/56	A	I	F	R	20060101
A61B-0017/58	A	I	F	B	20060101
A61B-0017/60	A	I	L	B	20060101
A61B-0017/88	A	N		R	20060101
A61B-0017/88	A	I	L	B	20060101
A61F-0002/00	A	N		R	20060101
A61F-0002/00	A	I	L	B	20060101
A61F-0002/28	A	N		R	20060101
A61F-0002/28	A	I	L	B	20060101
A61F-0002/32	A	I	L	B	20060101
A61F-0002/34	A	I	L	B	20060101
A61F-0002/44	A	I	L	B	20060101
A61F-0002/44	A	I		R	20060101
A61F-0002/46	A	I	L	B	20060101
A61F-0002/46	A	I		R	20060101
A61B-0017/34	C	I		R	20060101
A61B-0017/56	C	I	F	R	20060101
A61B-0017/58	C	I	L	B	20060101
A61B-0017/60	C	I	L	B	20060101
A61B-0017/88	C	N		R	20060101
A61F-0002/00	C	N		R	20060101
A61F-0002/00	C	I	L	B	20060101
A61F-0002/28	C	N		R	20060101
A61F-0002/32	C	I	L	B	20060101
A61F-0002/44	C	I		R	20060101
A61F-0002/46	C	I		R	20060101

US Classification, Issued: 606093000, 606093000, 606053000, 606092000, 606094000

File Segment: EngPI; ;
DWPI Class: P31; P32

?

33/12/5 (Item 5 from file: 350) **Links**
Derwent WPIX

0006623956
WPI Acc no: 1993-406812/199351
XRAM Acc no: C1993-180809
XRPX Acc No: N1993-314853

Bone cement applicator - has a cap and applicator tube fitting to container without shoulders to give smooth flow without loss

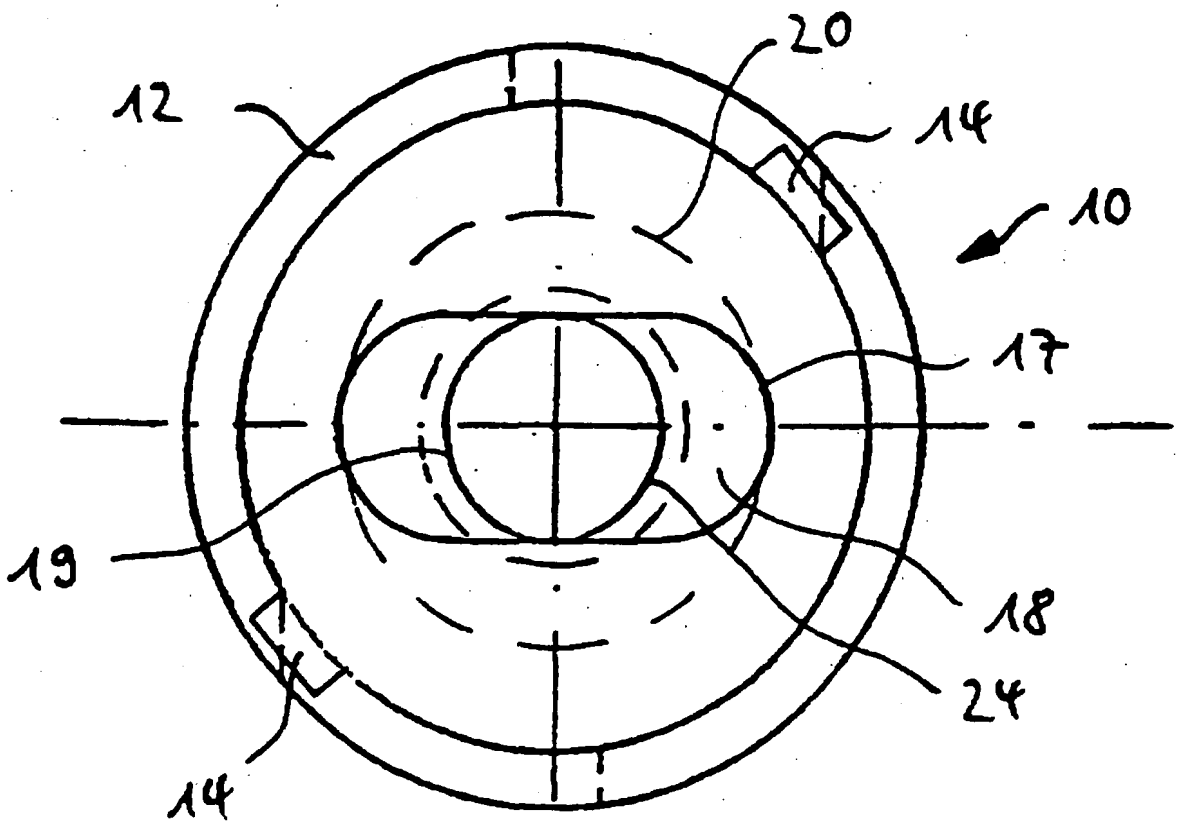
Patent Assignee: DRAENERT K (DRAE-I)
Inventor: DRAENERT K

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 4219563	A1	19931216	DE 4219563	A	19920615	199351	B

Priority Applications (no., kind, date): DE 4219563 A 19920615
National Designated States: JP US
Regional Designated States: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE LI

Alerting Abstract DE A1
The applicator system for the application of plastic materials, has a pref. funnel-shaped outlet section fitting the container, and a longitudinal application section. There are no shoulders or other projections along the surfaces of the applicator parts.
Pref. the system is in one or more parts, and pref. in two parts. The outlet piece is shaped to fit into the outlet opening of the container, without forming a shoulder. The application piece, 3-25 cm long, and pref. 5-20 cm long, is a tube, hose or trunk. A single- or multi-part cap fits on the container, pref. with a bayonet fitting or as a screw closure, so that the conatiner and cap fit together without a shoulder. The cap has an out-of-round outlet opening, such as for a lateral opening extension for the container without a shoulder. The location of the cap fitting is set such as by a limit stop of the bayonet structure. The cap is in two parts, with an inserted Teflon (RTM) hose, where the inner dia. of the main cap part and the hose are identical at the transit point. The hose is drawn to give a rim which grips at the cap to prevent retraction.
USE/ADVANTAGE - The applicator system is for the delivery of a **bone cement**, and the like, such as an organic and plastic synthetic material such as PMMA **bone cement**. The system ensures that the bone marrow zones are fully filled, without loss.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: BONE; CEMENT; APPLY; CAP; TUBE; FIT; CONTAINER; SHOULDER; SMOOTH; FLOW; LOSS

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-017/58; A61F-002/46; B65D-083/76			Main		"Version 7"
A61M-003/00; B01J-004/00; B05C-017/005; B28B-013/00; B29C-039/24; B65D-035/38			Secondary		"Version 7

US Classification, Issued: 606092000, 606093000, 606094000, 606095000, 604247000, 222527000

File Segment: CPI; EngPI
DWPI Class: A96; D22; P31; P32; P34; P42; P64; Q32; Q34

```
Set     Items   Description
S1    2171638   S BONE? ? OR OSTEOGENIC? OR ORTHOPED? OR ORTHOPAED? OR OSSEOUS? OR OSTEAL?
S2     635277   S CEMENT? OR PASTE? OR ADHESIV?
S3      12585   S CALCIUM()SULFATE OR POLYMERIC(1W)CEMENT? OR
(BONE(2N)GRAFT?(2N)(MATERIAL? ? OR SUBSTRATE? ?))
S4    1567781   S NEEDLE? ? OR TUBE? ? OR TUBULAR? OR SHEATH? OR SLEEVE? OR CANNULA? OR
CANULA? OR (DELIVER? OR ELONGAT?)(3N)(MEMBER? ? OR ELEMENT? ?)
S5     609560   S PORT OR PORTS OR APERTURE? OR SLIT OR SLITS OR SLOT OR SLOTS OR
PERFORAT?
S6     627680   S OPENING? OR HOLE? ?
S7      31043   S S1(5N)S2
S8      26259   S S5:S6(5N)(RADIAL? OR SIDE OR SIDES OR LONGITUD? OR LATERAL?)
S9      33555   S S5:S6(5N)(PLURAL? OR MULTI OR MULTIPL? OR SEVERAL? OR MANY OR NUMEROUS?
OR MORE(2W)ONE OR TWO(2W)(MORE OR LEAST))
S10     15833   S S4(5N)S5:S6
S11        12   S (S7 OR S3) AND S10 AND S8:S9
S12         2   RD  (unique items)
S13        19   S (S7 OR S3) AND S4 AND S8:S9
S14         7   S S13 NOT S11
S15         4   RD  (unique items)
S16         1   S (S3 OR S7) AND S8 AND S9
S17         1   S S16 NOT (S11 OR S14)
S18        25   S (S3 OR S7)(S)S10
S19        13   S S18 NOT (S11 OR S14 OR S17)
S20         8   RD  (unique items)
S21        27   S (S3 OR S7) AND S10
S22         2   S S21 NOT (S11 OR S14 OR S17 OR S19)
S23        83   S (S3 OR S7) AND S8:S9
S24        54   S (S3 OR S7)(S)S8:S9
S25         5   S S24/2004:2007
S26        31   S S24 NOT (S11 OR S14 OR S19 OR S22 OR S25)
S27        18   RD  (unique items)

?  show files
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[File 155] **MEDLINE(R)** 1950-2007/Apr 13

[File 73] **EMBASE** 1974-2007/Apr 18

[File 5] **Biosis Previews(R)** 1926-2007/Apr W3

**File 5: BIOSIS has been enhanced with archival data. Please see HELP NEWS 5 for information.*

[File 6] **NTIS** 1964-2007/Apr W2

[File 8] **Ei Compendex(R)** 1884-2007/Apr W2

[File 23] **CSA Technology Research Database** 1963-2007/Mar

[File 35] **Dissertation Abs Online** 1861-2007/Mar

[File 65] **Inside Conferences** 1993-2007/Apr 20

?

12/7/1 (Item 1 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

13608593 **PMID:** 11805646
The use of a side-opening injection cannula in vertebroplasty: a technical note.

Heini Paul F; Dain Allred C
Department of Orthopaedic Surgery, Spine Service, Inselspital, University of Bern, Switzerland. paul.heini@insel.ch

Spine (United States) Jan 1 2002 , 27 (1) p105-9 , **ISSN:** 1528-1159--Electronic **Journal Code:** 7610646
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
STUDY DESIGN: A human cadaveric investigation was conducted to determine the effect that a side-opening injection cannula in monopedicular percutaneous vertebroplasty had on the vertebrae filling pattern. OBJECTIVES: To assess the filling pattern in vertebroplasty using a monopedicular technique, and to compare a standard front-opening filling cannula with a side-opening cannula. SUMMARY OF BACKGROUND DATA: Vertebroplasty is an effective treatment for osteoporotic vertebral fractures. Clinical and biomechanical investigations show its efficacy even in asymmetrical filling patterns. However, the risk of cement extravasation is a major concern with this technique. METHODS: Two different bone cement-injecting cannulas were compared: a standard front-opening cannula (8 gauge, 6 inches long) and a cannula of the same dimensions with a side-opening at its distal end. Eight pairs of osteoporotic nonfractured cadaver vertebrae (T10-T11) were augmented with low-viscosity polymethylmethacrylate under axial C-arm control. The filling pattern was assessed semiquantitatively. The cross-section in its lateral extension was divided into four equal bands, and the appearance of the cement in each respective zone was assessed after cement injections of 2, 4, and 8 mL. The extravasation of bone cement also was monitored. RESULTS: With the side-opening cannula, the cement flow reached Zone 3 in six of eight cases, whereas with the front-opening cannula, the polymethylmethacrylate was observed in Zone 3 in only three cases. In no case was the cement observed in Zone 4. In five of eight cases using front-opening cannulas, extravasation into the vessels was observed after 3 to 4 mL of bone cement had been injected. No extravasation was noted with the use of the side-opening cannula unless the amount of cement exceeded 8 mL. CONCLUSIONS: A side-opening cannula can improve the cement-filling pattern in monopedicular vertebroplasty, as compared with a standard front-opening **cannula**. The risk of extravasation is diminished if the cement flow is directed medially.
Record Date Created: 20020123
Record Date Completed: 20020419

12/7/2 (Item 2 from file: 155) **Links**
Fulltext available through: John Wiley and Sons USPTO Full Text Retrieval Options
MEDLINE(R)

12716386 **PMID:** 10813760
An injectable cementing screw for fixation in osteoporotic bone.

McKoy B E; An Y H
Orthopaedic Materials Testing Laboratories, Department of Orthopaedic Surgery, Medical University of South Carolina, Charleston, South Carolina 29245, USA. mckoybe@musc.edu
Journal of biomedical materials research (UNITED STATES) 2000 , 53 (3) p216-20 , **ISSN:** 0021-9304--Print
Journal Code: 0112726
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
With the aging population, osteoporosis and osteoporotic fractures are becoming more prevalent. Adequate screw fixation in this type of **bone** is difficult. Screws are often **cemented** in **bone** to help obtain purchase. However, current cementing techniques do not ensure implant stability. Here we present a new **cannulated** screw with **side ports** that can be injected with polymethylmethacylate (PMMA) for fixation in osteoporotic bone. We compared the ultimate holding power of this cannulated screw injected with PMMA to a solid screw with the same dimensions secured with PMMA by the standard technique. Both screws were placed into embalmed and fresh frozen lumbar vertebral bodies and pulled out using a mechanical testing system. The cannulated screw had a 278% greater holding power compared to the standard screw ($p < 0.006$). The cannulated screw provided a significant increase in holding power in osteoporotic bone. This novel screw is promising for fixation in osteoporotic bone and warrants clinical evaluation.
Record Date Created: 20000815
Record Date Completed: 20000815

?

15/7/2 (Item 1 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

18988218 **Biosis No.:** 200600333613
Device for injecting bone cement

Author: Jaggi Kurt; Heini Paul
Author Address: 3095 Spiegel b. Bern, Switzerland**Switzerland
Journal: Official Gazette of the United States Patent and Trademark Office Patents FEB 14 2006 2006
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: In a device for injecting **bone cement**, the discharge direction of the **bone cement** after insertion of the **cannula** should be controllable in a certain region. This is made possible through a **radial** exit **aperture** which is provided on the front end of the **cannula**. Since the **cannula** is inserted with the aid of a guide wire, it has an orifice on its front end, which orifice must be closed off by means of a ball prior to the injection. A plunger serves to insert the ball. So that the situation of the **radial aperture** is known at all times, even with inserted **cannula**, the handle of the **cannula** has an asymmetrical shape.

?

17/7/1 (Item 1 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

16781663 **Biosis No.:** 200200375174
Connector assembly for mating components, connector assembly for a bone cement mixing and delivery system, and bone cement container having a connector assembly

Author: Burchett Ronnie (Reprint)
Author Address: Missoula, MT, USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1258 (4): May 28, 2002 2002
Medium: e-file
ISSN: 0098-1133
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: A connector assembly for a fluid containment system includes a first body and a second body. The first body includes a male end portion having a plurality of fingers extending outwardly and arcuately along the body, a terminating portion of each finger elastically urgable in an inward direction. The second body includes a female end portion having a **plurality** of **longitudinally** extending receiving **slots** along an inner surface of the female portion, each **longitudinal slot** positioned to axially receive in assembly a respective one of the fingers, and a recess formed in the female portion inner surface adjacent and arcuately offset from each **longitudinal slot**. The first body is axially loaded into the second body by inserting the fingers into the slots, and the loaded first body is rotated relative to the second body, inwardly urging the fingers, and receiving the fingers within the respective slots.

?

20/7/4 (Item 2 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

17947066 **Biosis No.:** 200400317823
System and method for reinforcing bone in preparation for screw implantation

Author: Gorek Josef E (Reprint)
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1283 (4): June 22, 2004 2004
Medium: e-file
ISSN: 0098-1133 _(ISSN print)
Document Type: Patent

Record Type: Abstract
Language: English

Abstract: A system and method for reinforcing bone in preparation for screw implantation. One system embodiment comprises a threaded and centrally bored cannula with a perforated distal end, a cannula applicator frictionally fitting within the central bore, a plunger translating within the central bore (the plunger having a internal longitudinal guide wire), **bone cement**, and a cannulated drill bit. One method embodiment comprises drilling and tapping a hole in a vertebral body, inserting the applicator into the central bore, screwing the **cannula** into the tapped **hole** by rotating the applicator, removing the applicator, injecting the **bone cement** into the central bore, distributing the **bone cement** out the holes in the distal end of the cannula and into the surrounding bone using the plunger, letting the **bone cement** harden, and drilling out the plunger using the cannulated drill following the guide wire.

20/7/6 (Item 4 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

17734015 **Biosis No.:** 200400114772
Method and apparatus for augmentation of the femoral neck

Author: Margulies Joseph Y (Reprint); Baroud Gamal; Steffen Thomas; Aebi Max
Author Address: 8 Usonia Rd., Pleasantville, NY, 10570, USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1278 (3): Jan. 20, 2004 2004
Medium: e-file
ISSN: 0098-1133 _(ISSN print)
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: Combining an implant and cement for prophylactic and/or preventative use for femoral neck augmention. A hole is drilled into the femoral neck. The hole is filled with an uncured filler cement after loose materials have been removed from the hole. Then, an open-ended tube, an implant, having openings through its walls is inserted into the hole and attached to the **bone**. Finally, additional filler **cement** is provided under pressure to the inside of the tubular implant. The filler **cement** flows into spaces in the **bone** structure via the **tube** wall **openings**. A sliding leak-tight fit between the implant and a cement injection tube permits delivery of cement at preselected locations along the implant length. Pressure is maintained until the filler cement has hardened. A strengthening factor up to 3 was measured when osteoporotic bone was strengthened.

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27/7/4 (Item 4 from file: 155) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

11937115 **PMID:** 9768901
A ported, proximally-cemented femoral stem for total hip arthroplasty. Development and clinical application.

Edidin A A; Merritt P O; Hack B H; Manley M T
St Vincent's Medical Centre, Los Angeles, USA.
Journal of bone and joint surgery. British volume (ENGLAND) Sep 1998 , 80 (5) p869-75 , **ISSN:** 0301-620X--Print **Journal Code:** 0375355
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
We describe the development and early clinical application of a ported, proximally-cemented titanium stem for cemented total hip arthroplasty. PMMA bone cement is delivered to the proximal femur under pressure after the stem has been positioned within the femoral canal. A mid-stem cement occluder contains the cement to the proximal stem only. A tapered body is incorporated in the design of the stem to reduce the structural stiffness and hence the degree of stress shielding within the reconstructed joint. We performed preclinical studies to measure the reduction in porosity and the pressurisation achieved. The porosity, as measured by the void percentage within the cured cement mantle, was reduced by more than 50% and there was an almost threefold increase in the mean pressure. Mechanical testing of the stem, using a three-point bend test, showed that the addition of cement injection **ports** on the anterior and posterior **sides** of the body of the proximal stem did not reduce its strength. Finite-element analysis indicated that, compared with a fully-cemented conventional stem, there was no change in the stresses within the cement mantle. In a series of 40 proximally-cemented stems followed for up to six years (mean 51 months) the mean Harris hip score was 91, and 85% of patients had good or excellent results. There was excellent pain relief, an increased level of activity and good patient satisfaction. One mechanical failure of the stem required revision at three years after implantation. The early results indicate that the clinical performance was equal to that achieved with other modern cemented stems. Radiological evaluation showed excellent results with no evidence of stress shielding. Further follow-up will determine if long-term stress shielding is reduced and if revision is made easier by the absence of a distal cement mantle.
Record Date Created: 19981020
Record Date Completed: 19981020

27/7/9 (Item 1 from file: 73) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
EMBASE

07425021 **EMBASE No:** 1998335448
A ported, proximally-cemented femoral stem for total hip arthroplasty

Edidin A.A.; Merritt P.O.; Hack B.H.; Manley M.T.
A.A. Edidin, 255 Bellvale Lakes Road, Warwick, NY 10990 United States
Journal of Bone and Joint Surgery - Series B (J. BONE JT. SURG. SER. B) (United Kingdom) 1998 , 80/5 (869-875)
CODEN: JBSUA **ISSN:** 0301-620X

Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH
Number Of References: 13

We describe the development and early clinical application of a ported, proximally-cemented titanium stem for **cemented** total hip arthroplasty. PMMA **bone cement** is delivered to the proximal femur under pressure after the stem has been positioned within the femoral canal. A mid-stem cement occluder contains the cement to the proximal stem only. A tapered body is incorporated in the design of the stem to reduce the structural stiffness and hence the degree of stress shielding within the reconstructed joint. We performed preclinical studies to measure the reduction in porosity and the pressurisation achieved. The porosity, as measured by the void percentage within the cured cement mantle, was reduced by more than 50% and there was an almost threefold increase in the mean pressure. Mechanical testing of the stem, using a three-point bend test, showed that the addition of cement injection **ports** on the anterior and posterior **sides** of the body of the proximal stem did not reduce its strength. Finite-element analysis indicated that, compared with a fully-cemented conventional stem, there was no change in the stresses within the cement mantle, In a series of 40 proximally-cemented stems followed for up to six years (mean 51 months) the mean Harris hip score was 91, and 85% of patients had good or excellent results. There was excellent pain relief, an increased level of activity and good patient satisfaction. One mechanical failure of the stem required revision at three years after implantation. The early results indicate that the clinical performance was equal to that achieved with other modern cemented stems. Radiological evaluation showed excellent results with no evidence of stress shielding. Further follow-up will determine if long-term stress shielding is reduced and if revision is made easier by the absence of a distal cement mantle.

27/7/12 (Item 2 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

17376886 **Biosis No.:** 200300345605
Bone graft inserter device

Author: DeMayo Edward (Reprint)
Author Address: Greenbrae, CA, USA**USA
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1271 (4): June 24, 2003 2003
Medium: e-file
ISSN: 0098-1133 _(ISSN print)
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: A surgical tool in the form of a three piece bone graft inserter includes a pair of concentric cylinders having elongated apertures formed in the side walls of the cylinders to allow the interior of one of the cylinders to be loaded with the **bone graft material**, and a plunger that extends through both cylinders. Rotating one of the cylinders thereby "closes" "the apertures creating a closed cylinder filled with the graft material. The ends of the cylinders are inserted into the bone void and the plunger is advanced forward to move the **graft material** into the **bone** cavity.

27/7/13 (Item 3 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

17203056 **Biosis No.:** 200300161775
Cement jacket for a cemented artificial joint stem and artificial joint having the cement jacket

Author: Yoon Yong-San (Reprint)
Author Address: Taejon, South Korea**South Korea
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1267 (4): Feb. 25, 2003 2003
Medium: e-file
ISSN: 0098-1133 _(ISSN print)
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: A cement jacket for a cemented artificial joint stem, the cement jacket including a main body with a hollow interior and an open upper end for receiving and enclosing at least a part of a stem of an artificial joint, the cement jacket being shaped and adapted for longitudinal insertion in an opening formed in a bone canal of a human body, the cement jacket being made of cement and reinforced by imbedded wire or fiber and having an inner surface coated with a plastic film having a high resistance to abrasion, and the outer surface of the cement jacket is formed with discharging paths in the longitudinal direction so that excessive **cement paste** previously poured into the **bone** canal for the surgical purpose can be easily discharged upward at the time of inserting the jacket.

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Set     Items   Description
S1     374737   S BONE? ? OR OSTEOGENIC? OR ORTHOPED? OR ORTHOPAED? OR OSSEOUS? OR OSTEAL?
S2     506255   S CEMENT? OR PASTE? OR ADHESIV?
S3       3065   S CALCIUM()SULFATE OR POLYMERIC(1W)CEMENT? OR
(BONE(2N)GRAFT?(2N)(MATERIAL? ? OR SUBSTRATE? ?))
S4     611482   S NEEDLE? ? OR TUBE? ? OR TUBULAR? OR SHEATH? OR SLEEVE? OR CANNULA? OR
CANULA? OR (DELIVER? OR ELONGAT?)(3N)(MEMBER? ? OR ELEMENT? ?)
S5    1297827   S PORT OR PORTS OR APERTURE? OR SLIT OR SLITS OR SLOT OR SLOTS OR
PERFORAT?
S6    1821633   S OPENING? OR HOLE? ?
S7       3076   S S1(5N)S2
S8      23218   S S5:S6(5N)(RADIAL? OR SIDE OR SIDES OR LONGITUD? OR LATERAL?)
S9     105255   S S5:S6(5N)(PLURAL? OR MULTI OR MULTIPL? OR SEVERAL? OR MANY OR NUMEROUS?
OR MORE(2W)ONE OR TWO(2W)(MORE OR LEAST))
S10      7369   S S4(5N)S5:S6
S11         0   S (S7 OR S3) (S) S10 (S) S8:S9
S12         2   S (S3 OR S7)(S)S4(S)S8:S9
S13         0   S (S3 OR S7)(S)S8(S)S9
S14         2   S (S3 OR S7)(S)S10
S15         2   S S14 NOT S12
S16         2   S (S3 OR S7)(S)S8:S9
S17         0   S S16 NOT (S12 OR S15)
S18         1   S (S3 OR S7) AND S10 AND S8:S9
S19         1   S S18 NOT (S12 OR S15)
S20         2   S S1(S)S2(S)S4(S)S8:S9
S21         0   S S20 NOT (S12 OR S15 OR S19)
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[File 9] **Business & Industry(R)** Jul/1994-2007/Apr 16

[File 16] **Gale Group PROMT(R)** 1990-2007/Apr 18

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Apr 18

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Apr 19

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Apr 10

[File 441] **ESPICOM Pharm&Med DEVICE NEWS** 2007/Oct W2

[File 149] **TGG Health&Wellness DB(SM)** 1976-2007/Apr W1

[File 635] **Business Dateline(R)** 1985-2007/Apr 20

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Apr 19

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